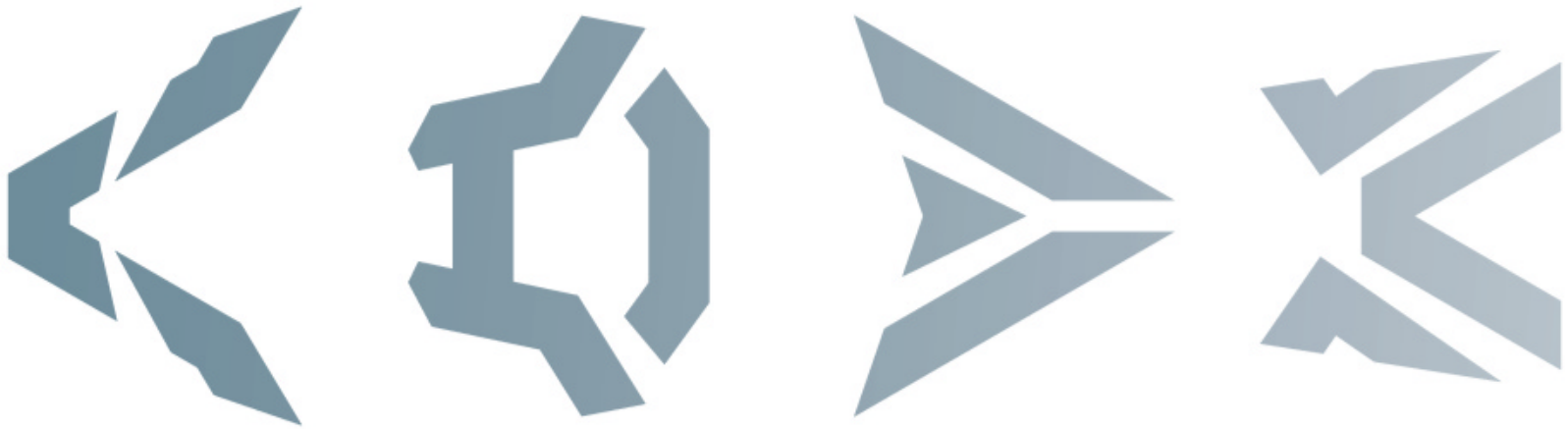
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HADES **THE DIVISION 2** RAGE 2

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BIOWARE'S LEGENDARY ANSWER TO DESTINY IS READY FOR TAKEOFF

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#329
MARCH 2019

Yes, we all evolve in haste. It's a race you never finish

We're sure January used to be a quiet month, but 2019 has got off to a flying start. The industry was rocked this past month by the announcement that Bungie and Activision are parting ways eight years into a planned ten-year deal, with the *Destiny* developer assuming publishing rights of its muddled, yet intoxicating, online shooter. In Knowledge, we unpick the implications of a shocking, yet also entirely understandable, separation.

The *Destiny* experiment is no failure, yet nor has it been a resounding success. It is, however, an excellent case study for anyone making a living game. During its four-and-a-bit years, it has been by turns enormously generous and too stingy; adored by its players, and hated by them; and the jewel in Activision's crown and its biggest disappointment – the various pendulums often swinging between extremes in a matter of weeks.

It's an object lesson for anyone seeking to make something similar. In Hype this month we catch up with *The Division 2*, a sequel to a troubled, yet tremendously popular game. Developer Massive Entertainment has clearly followed the *Destiny* story – and is designing the sequel around what its existing players most want, rather than something to which the studio thinks a hypothetical swell of new players might be attracted.

Live games are a constant tightrope: developers are only ever one patch or content drop away from glory or a fatal fall. And the makers of this month's cover game have even more on their plate. It's an awkward time for EA to publish a game about chasing loot, its reputation still bruised after the *Battlefront II* fiasco. And it's a tricky time for BioWare, whose recent track record includes *Mass Effect 3* – a game with an ending that was so despised the studio reluctantly went back to change it – and *Mass Effect: Andromeda*, a game so poorly received that EA shuttered the BioWare satellite that made it. The pressure's on, then, but our visit to the Edmonton HQ finds a team brimming with confidence. From what we've seen, they've every right to be. The *Anthem* story begins on p60.



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Printed in the UK by William Gibbons & Sons on behalf of Future. Distributed by Marketforce, 2nd Floor, 5 Churchill Place, Canary Wharf, London E14 5HU.

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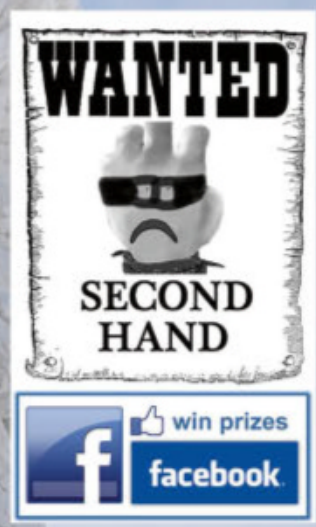
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Control programme

How Black Mirror helped build **Netflix's interactive storytelling engine** with dark film/game Bandersnatch







Charlie Brooker (top) created Black Mirror along with Annabel Jones; Russell McLean was producer on Bandersnatch

FAIR GAME
Some game industry types (*Deus Ex* creator Warren Spector among them) have criticised Bandersnatch's "amateurish" take on well-established ideas. Out of interest – how much had the team researched modern IF games? "Yeah, well, 'sort of none' is the answer," Brooker admits. "If we stumble across an idea, I avoid looking at things that might be in a similar area, in case I go, 'Oh, I can't do that now.'" McLean remembers a brief look at 2016 FMV game *The Bunker*: "It always stopped at choices, and David [Slade, director] was always focused on making sure it's moving on, that we never took people out of the film – trying to make it *not* feel like a game, basically."

Around these parts, letting someone take control of a story is hardly a revelatory prospect. Videogames have long understood what it means to have a player take charge of what's on screen; films and TV series, meanwhile, have remained things you sit back and watch unfold. Fire up Bandersnatch, the first episode of the new season of sci-fi anthology series Black Mirror, and the opposite is true. Powered by Netflix's own custom-made engine, Bandersnatch tells the tale of a developer making his first game, based on a choose-your-own-adventure book. Or, rather, you tell it – by using your remote, mouse or controller to select between choices and progress the story along various paths.

It's perhaps the first high-profile success of its kind, and with strong performances, slick execution and winking metafiction has enraptured a mainstream audience. But **Charlie Brooker**'s initial reaction to Netflix's suggestion of an interactive Black Mirror episode was, "No fucking way". Why? "Probably because I'd played so many games," he says. "I was writing for PC Zone when CD-ROMs came along and everyone went, 'Oh my god, we can do movies that you play like games!'" He recalls *Night Trap*, and *Under A Killing Moon*: "They were sort of fun, but there was lots of waiting around, pauses, the video quality wasn't great. So I was quite cynical about the qualities of these things. And also, when you're writing a linear story, you define the characters by what they do. And if you're ceding that control to the player, well then, where's your character gone?"

And, as **Annabel Jones** points out, Netflix's presentation showed a overly simple software. "They didn't have the technical ability to do anything other than binary choices that didn't lead anywhere. it would be very hard to build anything of any significance, or have any character development. So we nodded, and were admiring, and then left and went, "No fucking way are we going to do that".

"The process became symbiotic, Bandersnatch helping Netflix's engineers to push the technical limits"

And then, to Brooker's irritation, he came up with an idea that suited an interactive format perfectly – a metafictional riff on a game dev being consumed by his own explorations of free will and consequence. Scriptwriting began in earnest. "We realised it didn't fit on a whiteboard, so we got another whiteboard," he says. "Then that didn't work, so we got flowchart software."

It still wasn't sophisticated enough for their needs. "Netflix was encouraging us to test the limits of what is feasible with the platform," he explains. "So I ended up having to write the script outline in [open-source IF software] Twine." Bandersnatch would act as a proof of concept, with the new engine, Branch Manager, created in conjunction with the episode. Brooker took it upon himself to program with Twine."Luckily Charlie's got a very large brain, and took to the coding very quickly," producer **Russell McLean** says. "The script just kept getting bigger. It went from 100 pages, to 140 pages, to 170 pages." Brooker began to write recaps into the script (the final episode often rewinds for you to try different choices), so it was "less boring to read," he says. "We called them 'previously ons'. But because it had to track what you'd done, I had to learn how to get it to do that."

An unconventional, confusing shoot followed – the size of the script meant that a full readthrough before was impossible – in which continuity was a constant concern. But the edit proved most technically challenging. When the first version of Branch Manager arrived from Netflix, it was time to put the pieces together: fortunately, first assistant editor John Weeks, who had past experience making games, was on hand. "He went through and made a list of 'This is great, but these are the things it would be helpful if it did', and they'd come back with the next version a week later with all these things in it." Weeks, too, was the person Brooker turned to when his script would crash – a first for the writers.

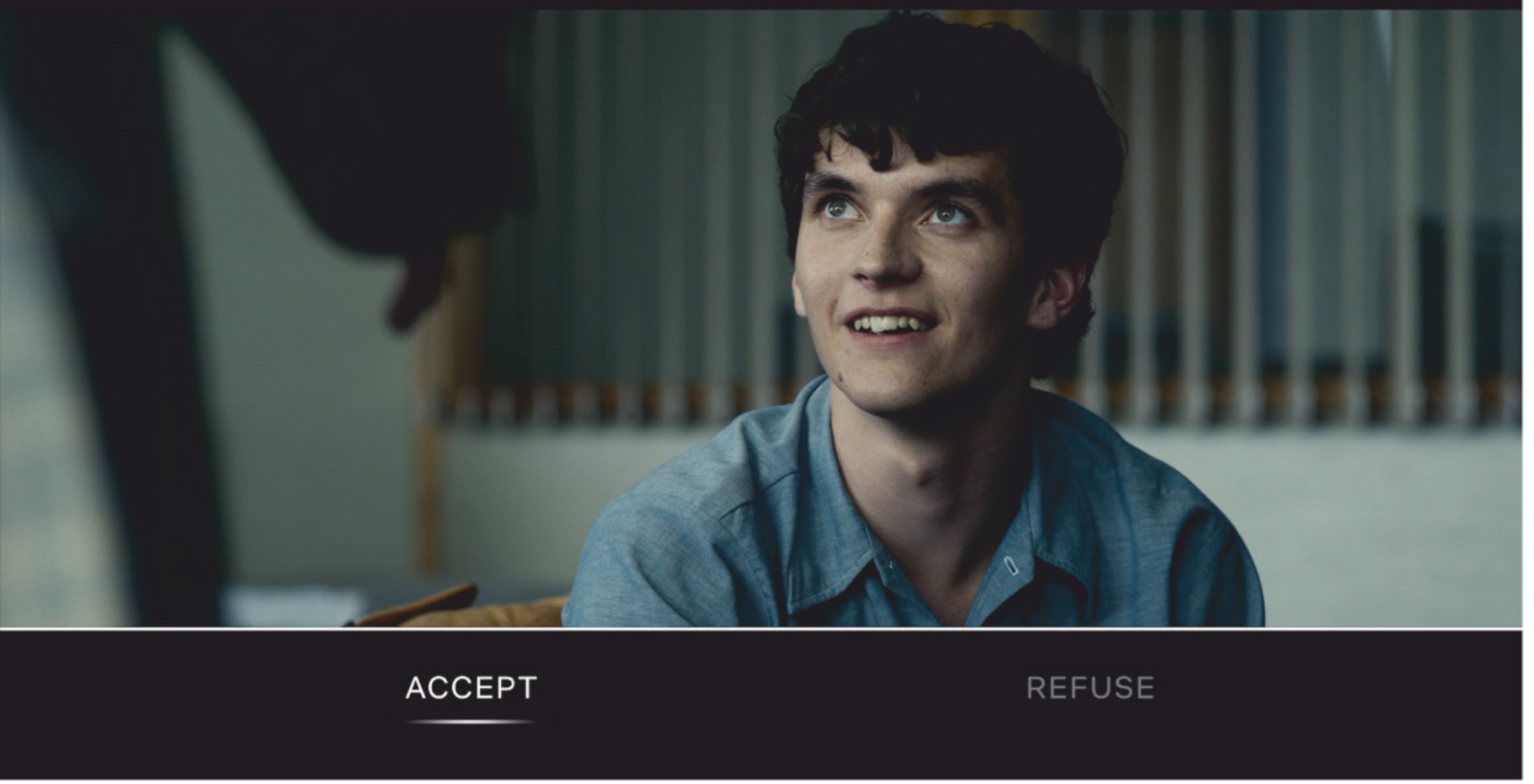
"Because we had sequence names and numbers and letters for every visual sequences," Jones says, "John would say things like, 'Well, you've gone to AAO2, and then it went to LG3, and then it went back to PVQ, so that's why we've ended up at TV5'. And I'm going, 'Charlie, what did he say? What just happened?' So everyone was working in their own different specialism." She whispers, half-jokingly: "It was a fucking nightmare!"

Eventually, the process became symbiotic, Bandersnatch's ambition helping Netflix's engineers to push the technical limits. At one point, there was concern about how much time there needed to be between presented choices to allow for the possible video sequences to buffer –"a minimum of a minute" at first, McLean says. They managed to pull it down to 30 seconds – "There are a couple of moments where it's ten, but we're cheating a bit as they're slightly fake choices," McLean notes.

The aim was always to make something that felt more like a film than a game, but that used the interactive aspect to involving – even chilling – effect. "The story you're telling has to fit," Brooker says, when we ask whether he sees this kind of interactive television becoming standard. "The trickiest thing is, who is your central character? And is it the viewer, basically? That's the thing that I bump up against as the biggest sort of nut to crack. Because if not, you have to do something that limits or makes sense of the choices.

"It's never going to replace wanting to watch, in the same way that computer games haven't replaced books," he continues. "It just exists in parallel. You're always going to want stories that you're just *told*. But this is a proof of concept that seems to work slickly, and is available on Netflix. Hopefully other programme makers and filmmakers will look at what we've done with this and go, 'I didn't like that bit, but I did like that bit'. And also, hopefully, there'll be lots of viewers who will now go, 'Oh, I enjoyed that. The concept of controlling something on my screen, that appeals to me. I've heard about these videogame things – maybe I'll try one of them.'" ■

The film features 150 minutes of footage, and there are five main endings, with variations on each



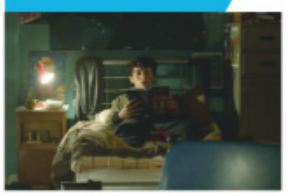




Watching Bandersnatch via a game console introduces controller rumble when a choice is about to appear. Brooker played it on Xbox One first, and was soon sending Netflix notes on where, and how strong, the rumble should be



TELLING TALES
ChooseCo sues Netflix over CYOA



Bandersnatch is a choose-your-own-adventure TV episode about the making of a choose-your-own-adventure game based on a fictional choose-your-own-adventure book. The owner of the trademark and creator of the original CYOA books, ChooseCo, naturally has something to say about it. It's now suing Netflix for a cool $25 million in damages, asserting that "the film's dark and, at times, disturbing content … tarnishes ChooseCo's products". And this isn't the first time it's sent a cease-and-desist to the streaming giant, seemingly in reference to the CYOA-style children's animations. If we're going to see any more of these, Netflix (and we are, we're told), a rebrand seems in order.

Thought for the day

Rami Ismail on Meditations – a year's worth of contemplative daily games

Ten dark grey bars lie in the middle of the screen, arranged like rudimentary dominos. Click on the first and it turns a creamy white. Click on the second, and it too lights up. Ditto, the third. But on the fourth click, they all reset to their original colours. It takes a while to realise what you're supposed to do: curb your natural instinct for instant gratification, leave a longer gap between each click than the previous one and you'll eventually light up all ten. And that's the game.

This is *Tempres* by Melbourne-based developer Tak, the inspiration for a year-long interactive art project set up and curated by Vlambeer's co-founder and staunch indie advocate Rami Ismail. Meditations is the work of Ismail, a small team of helpers, and more than 350 game developers. Download the launcher and you'll receive one game each day for a year. The games are small – no more than five minutes long. You can use them as inspiration, or simply a diversion: Ismail doesn't mind either way.

It was late 2017 when he first encountered *Tempres*, via Itch.io's Randomizer, which lets you set up a filter to discover something new from its vast library. "I played it early in the morning and just having this moment of insight, something little to toy with, had this weirdly profound effect on my day. I ended up thinking, 'Why don't we do this every day?'" Why, indeed. The first week of January 2018, he emailed Tak with his pitch for Meditations. "I explained and asked if I could use his game for January 1 [2019], and that's where it started."

Ismail set out the structure for the project, formulating a huge spreadsheet and a list of rules. "And then we started searching for 365 game developers," he says, casually, as if that were nothing at all. But it was a significant undertaking. Ismail started with friends, those in the dev community he knew and knew of. "I got a bunch of smaller developers and a bunch of bigger developers – all people whose work I would see on Twitter. Eventually I realised that this was creating a filter bubble. I didn't want this to be a parade of Rami's friends. I wanted it to be unpredictable."

As such, he assembled a team of curators (including fellow indies Moshboy, Jupiter Hadley and Adriel Wallick) to find a year's worth of creators. Even so, it was harder than he'd imagined. "There's a lot of game developers out there, but finding 365 that want to make a small experimental game inspired specifically by a day that is only playable on that day? Not everybody wants to work on an experimental project like that. Not everybody wants to make a game that's ephemeral or only available temporarily. And not everybody has time to do something like that."

> "Not everybody wants to make a game that's ephemeral or only available temporarily"

This wasn't, after all, a commercial project. And so, mindful of eating into developers' time – and of those creators with comparatively little experience and limited resources – Ismail determined that each Meditations entry would have to be developed over a period of no more than six hours. More rules were introduced. Each game would need to be inspired somehow by the date on which it was meant to be played. They would be controlled entirely by keyboard or mouse. Games would not feature text beyond the name of the creator, and would need to start upon the first input – so no menus, start screens or pre-game dialogue – and shut down immediately after completion. "And they would not load or save files because that would write to the user's computer and, well, that's already an interesting security project," Ismail says.



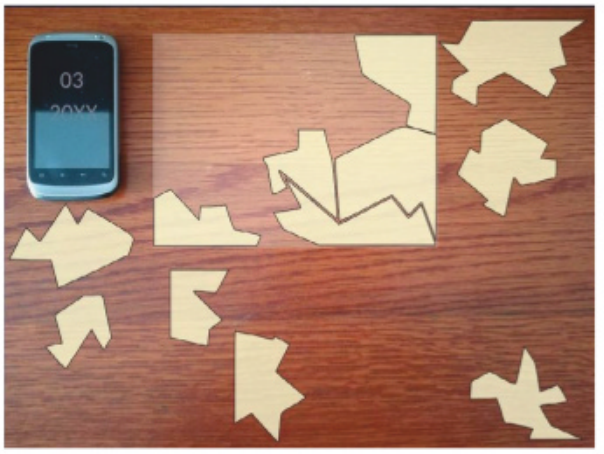
Vlambeer co-founder Rami Ismail

Then came a more esoteric demand. "You can't have more than 30 seconds of interaction spread over five minutes," he says. "So you can have like a really intense 30-second game or a very chill five-minute game, or anything in between." But there was another rule that Ismail says has been broken by around a third of the 365 developers involved: game files were supposed to be under 120MB. "This led to my server now being absolutely wrecked," he laughs, evidently delighted that Meditations has already attracted enough of an audience to create such a problem.

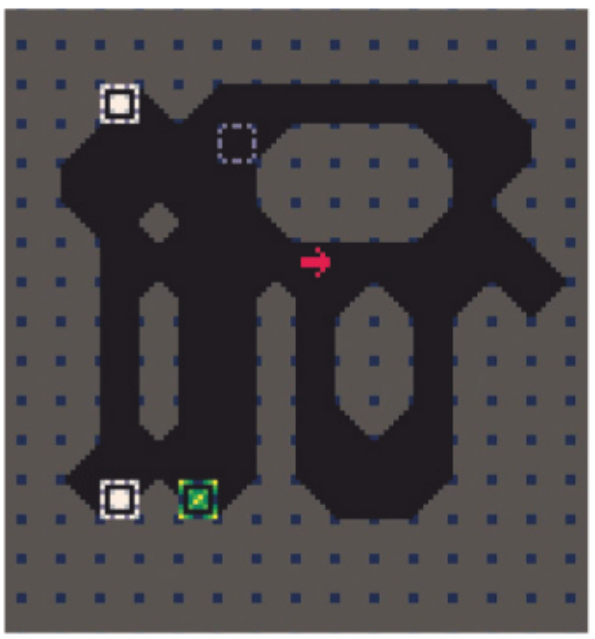
Ismail and team have recruited a range of developers, including some who are making their very first game. Others will allow us to see another side of established creators, though Ismail has made a decision not to reveal who's involved beyond the daily introductory messages – a necessary compromise to the 'no text' rule which adds context and meaning to certain games. "Throughout the year there'll be a number of quote-unquote 'newsworthy' moments but then at the same time I actually think a lot of the most interesting work happens between those," he says. In other words, rather than players picking and choosing days to boot it up to play something from their favourite developers, each day should yield a fresh surprise. "We want it to be an advent calendar where you don't know what's behind every door." ■

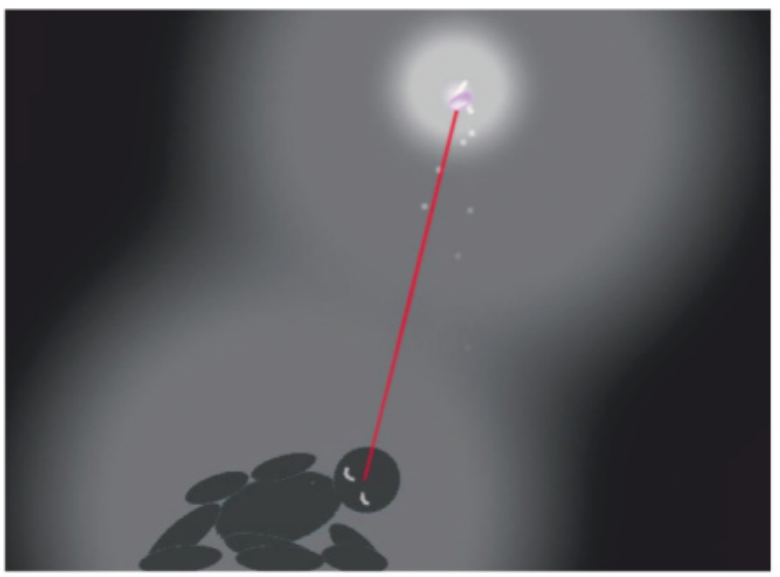






Completing this belatedly yields fireworks – representing the delayed gratification creators feel when games are discovered

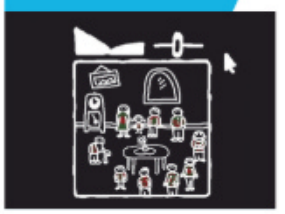




Ismail sets an alarm so he can check everything works when a game goes live: "Each developer only has 24 hours; I don't want it to be broken for the first three"

TRIGGER CUT

What if a warning spoils the surprise?



Ismail decided against specific content warnings for each game, though the Meditations website warns players that games might "represent things that might be shocking or uncomfortable". "I don't want to drop players into games that are triggering or otherwise distressing to them. But also, I don't want to tell developers they can't make games about these subjects. We wouldn't impose a warning without the developer's consent," he says. That may change, depending on player response: "Juggling 365 creative people, plus the ambiguous, undefined player, is a very interesting ethical and logistical challenge."

Solo traveller

After eight years, Bungie and Activision are splitting up. Where does Destiny go from here?

There were cheers, apparently, when Bungie management told an all-hands studio meeting that it was parting ways with Activision. From the outside looking in, it's easy to imagine why. The divorce settlement sees Bungie, which owns the *Destiny* IP under the terms of the ten-year deal signed in 2010, gain independent publishing rights to its shared-world shooter. It now has full creative control of a game whose near-decade in existence has been fraught with problems. No wonder that, as one source told Kotaku, champagne corks were popping.

Yet it may not be as simple as that. There is much to celebrate about the notion of a 700-person studio, which gave the world *Halo* and *Destiny*, now being one of the biggest indie developers on the planet. Yet there is much to be concerned about, too. The *Destiny* story has always been a bit of a mess, and no doubt its hitherto publisher has had a hand in its chequered past. But the studio has been culpable as well, and it must embark on the next chapter in its grand galaxial adventure with no little caution. The real story in all this is not that Bungie has regained its independence; it's that Activision was willing to walk away.

Activision gave Bungie ten years and half a billion dollars to make *Destiny*, but as a publicly listed multinational, its senior management and shareholders were naturally going to expect results. And it surely had cause to turn the screws occasionally. Bungie has long had an elastic relationship with the concept of a deadline; for all its profile and success, its development process has often been chaotic (co-founder Jason Jones described the making of *Halo 2* as like watching "a cathedral self-assembling in a hurricane"). By the time the original *Destiny* landed on shelves in September 2014, Bungie was already running a year behind the terms of the contract. That delay bumped *Destiny 2*'s due date back to 2016; the studio needed another year on top of that, and given the eventual state of the sequel, it could perhaps have done with even more time. According to reports, that wasn't an option: if *Destiny 2* missed 2017, Activision would be owed a chunk of Bungie stock by way of compensation.

> If Destiny 2 missed 2017, Activision would be owed a chunk of Bungie stock by way of compensation

The furore that followed the launch of *Destiny 2* was the darkest period in not just the game's history, but also that of the studio that made it. The difficult repair job that followed has been handled with surprising elegance, but the damage was already done. Last September's *Forsaken* expansion may have left *Destiny* in its greatest-ever shape, but Activision admitted in an earnings call it was "disappointed" with sales.

Yet that alone does not explain why Activision would abandon a series, and a studio, in which it had invested so much. Particularly when you consider what it is left with. Eric Hirshberg's time in charge was successful, but was highly short-termist, built on a handful of proven successes. Nothing is permanent in an industry that moves as quickly as this. *Guitar Hero* was milked dry. *Call Of Duty* is on the wane; over at Blizzard, *World Of Warcraft* continues its slow decline. Once *Sekiro* lands in March, Activision's slate looks worryingly clean.

THE HERO'S BURDEN
Bungie says it will hold firm to its existing roadmap for *Destiny 2*, which takes it up to September, when either *Destiny 3* or another expansion (presumably the latter, given the studio's track record) falls due. What happens after that remains to be seen, but it's clear Bungie has a lot to do internally beyond simply keeping new content coming. It grew to over 700 people thanks to Activision, and if the studio's release model is to change, its team structure will need to as well. That is no easy task. It has also, we assume, lost the support of the Activision studios that helped out on *Forsaken*. Going indie is never easy, but this looks like being on another level entirely.



So, is *Destiny 3*, if it is to be called that, in similar trouble to its predecessors? Another Kotaku report claims that it, like the original game and its sequel, has been rebooted. But in-development games often are, and given the very public course correction *Destiny 2* underwent in 2018, it's perhaps to be expected that whatever comes next has needed to change in kind.

Indeed, the heart of it may be good old-fashioned musical differences. The journey from *Destiny 2* to *Forsaken* has shown Bungie that its most important audience is its most passionate players. But there aren't many of them, and Activision would prefer *Destiny* to become the next *Call Of Duty*. If both parties insist on pulling in two diametrically opposed directions, a split may be the only option.

Still, Activision is one new IP or studio acquisition away from resetting the situation, and it has the resources to do both several times over. And for Bungie, at least, the benefits are clear. While the publisher's money and support helped bring *Destiny* to life, its traditional scheduling model is of no help to a live game. Bungie no longer needs to put something big in a box every September, or make two chunky DLC packages in between. In theory, the divorce enables the studio to move to a contemporary, and presumably more effective, live-service strategy in which content is released individually as it is completed, keeping the game in the spotlight.

Bungie declined to go on the record for this story about its plans, and for now that's probably the better option. It has a lot to think about, and much yet to do. The *Destiny* story is eight years old, yet it seems set to end with something of a new beginning. Ultimately, what happens next will be the thing that truly defines it. ■



Bungie isn't only working on Destiny – it is exploring a new IP with funding from Chinese publisher NetEase – but its sci-fi space opera remains its primary focus for now

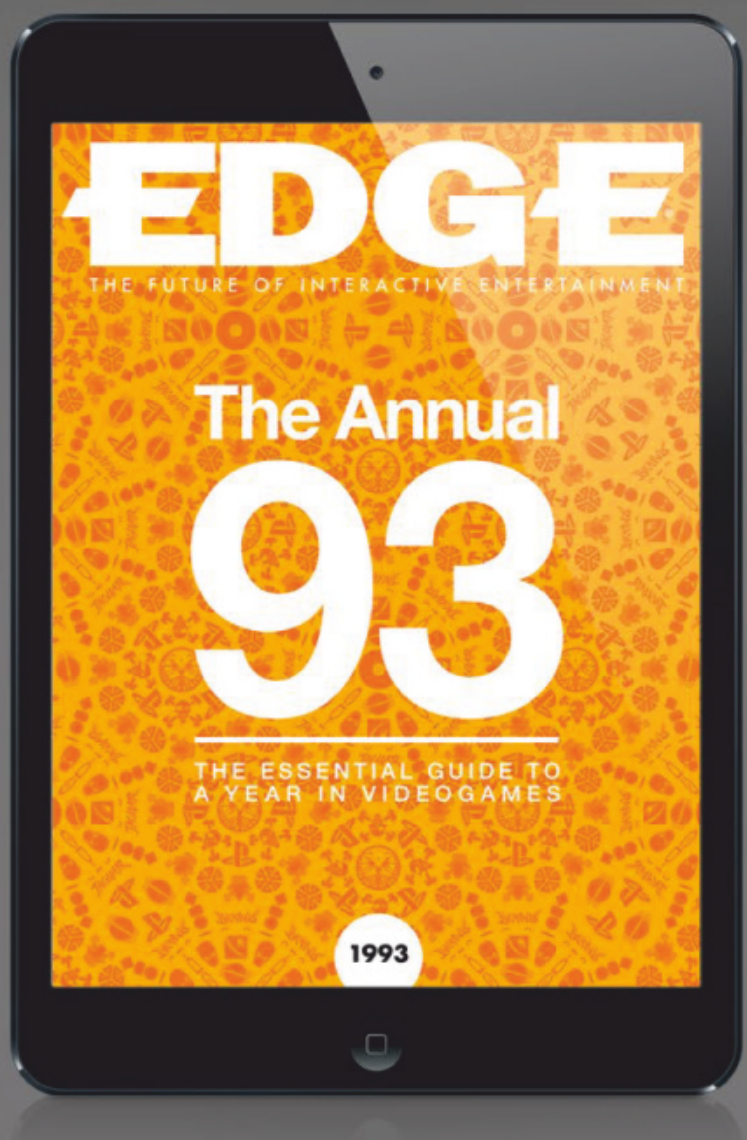
ROBOT ROCK

Mechanical, musical loops power this radiant rhythm game from Honig Studios

The fate of the civilised world is at your fingertips in *Impossible Bottles*. It's a rhythm game in which you must tap in time while a mad scientist shoots electricity through cables that power gigantic subterranean robots – and, in turn, the cities they move beneath. "I was always a fan of music games and illustrations that play with colours and bigger compositions," art director and illustrator **Rafael Varona** says, citing the works of Tom Haugomat and Lotta Nieminen as inspiration, as well as animation studios such as Psyop and Moth Animation.

The loops you set in motion are mesmerising: the huge mechanical beings stamp and flail to electronic beats, while the lights in the nightclub on the surface pulse in response. "Every looping animation and visual effect follows the beat, creating a sort of playful metronome," Varona says. But even the slightest hiccup in your robot-manipulating rhythm will have repercussions on the world above. "It's the notion that the world we live in is just a small part of a greater universe," Varona explains. "Enormous golems in eternal movement, mad scientists working in solitude, perfect loops and humorous animations and situations the player can discover if they look carefully." Prepare to puppeteer the power grid when *Impossible Bottles* releases on mobile, PC and consoles at the end of the year. ■











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Soundbytes

Game commentary in snack-sized mouthfuls



"Me little boy came home from school yesterday and gave me a number. **He's asking me to ring EA Sports...** he's been getting a bit of stick in school because his dad's only 35 pace."

Morecambe midfielder **Kevin Ellison** reveals the terrible human cost of being assigned rubbish *FIFA* stats



"In the long term, perhaps our focus as a business could shift **away from home consoles –** flexibility is just as important as ingenuity."

Nintendo president **Shuntaro Furukawa** hints at a hardware-free future for the house of Mario



"What is the Mad Box? **It's the most powerful console ever built**. You want 4k, you want VR at 60fps? You want a full engine for free? You have it."

Slightly Mad CEO **Ian Bell** goes full Soulja Boy. That studio name suddenly looks like an understatement

"TV has always been tentative in embracing videogames... **it could have broadcast people playing games 30 years ago**, but never did."



Comedian **Steve McNeil** reflects on UK TV channel Dave's cancellation of his videogame-themed panel show *Go 8 Bit*, which lasted just three series

ARCADE WATCH

Keeping an eye on the coin-op gaming scene



Game Kraut Buster
Developer NG Dev Team

NG Dev Team was founded in 2001 by German brothers Timm and Rene Hellwig, and ever since the collective has been flying the flag for forgotten videogame hardware. Its debut game, *Last Hope*, launched for Neo Geo AES in 2006, and for Neo Geo CD and Dreamcast the following year; 2010's *Fast Striker* was an MVS game that made it to Japanese arcades before being updated for Dreamcast. While it hasn't made a game for Sega's hardware swan song since, the developer has stood by SNK's, and its latest release is its most ambitious yet.

Over three years on from its announcement, *Kraut Buster* finally began shipping in December. It's a 2D run-and-gun in the style of 20th-century classics *Metal Slug* and *Contra* – though not at the same time. The game offers three difficulty levels and two play modes, one a slower, more tactical and developer-controlled experience the developer compares to Neo Geo's signature shooter, the other a faster-paced, more freeform style reminiscent of the Konami classic. The scoring system differs vastly between the two variants: in the slower T-Mode, scores are boosted by the number of treasures you find, while in C-Mode you'll want to hoover up pick-ups dropped when you quickly rack up kills.

The action is extremely busy by Neo Geo standards, and NG Dev Team has devised a 16bit AI that reacts on the fly to reduce slowdown or sprite flicker, despawning corpses or dialling down the effects when things get too hectic on screen. It's smart stuff from an indie developer that, despite its retro heritage, is now seeking to broaden its horizons: though it will return to Neo Geo in future, it's now making a game for Switch.



TOTAL FILM
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My Favourite Game
James Gilleard

The illustrator and animator on creating his distinctive vector art and the merits of playing meditative games

You need only admire a few pieces of **James Gilleard**'s artwork to establish a familiarity with his style. His work is found in magazines and websites, and even on the cover of a limited-edition Hellboy Blu-ray. Here, Gilleard reveals how games have played a role in his art.

Did videogames play a part in your desire to become an artist?
The Sega Saturn was my first console, and the art that was on-screen was inspiring. I can remember doing a picture of *Tomb Raider* when I was in Year 9. So there was definitely a crossover.

To what extent has your style been influenced by videogames?
I've always had this in the back of my head, to draw in vector, the geometric style. I really think that comes from the first *Tomb Raider*, again. The first few games were built on blocks, with fairly low-res textures on top. There's a picture of a mountain that I did; I was thinking of *Tomb Raider* while I was doing that.

How do you create your pieces?
It's all done in Adobe Illustrator. I sketch everything first. Then I put it into vector, I draw it all in, and then it goes into Photoshop. Then I add textures, and lighting. *The Last Guardian* one was fairly quick. Because I'm doing this on the side of commercial work, it's evenings and stuff, so difficult to put a timeframe on. Maybe three or four evenings, that one.

Do you get much time to play?
Not really. It depends. At one point I was playing *No Man's Sky* a lot, just because I found it really relaxing to play. I enjoyed just walking around and not particularly doing anything. Those are the sorts of games I really like, where you're not doing missions. I prefer those relaxing games. So I play that, and the other day I was playing *Abzû* for the second time. But the last month or so, I haven't played games, really.

MOVING PICTURES
Gilleard is also a keen animator. "I first got into animation through my university degree," he explains. "[It] was advertised as an illustration degree, but there was a side bit of it which was animation, and you could choose to go into that. Then at the end you could choose either illustration or animation for your final project, and I chose animation. That's where it started. I've done a few music videos for a few bands [Monsters by Tori Beaumont, and Gold by Gilleard's friend's band, Fassine]. I worked for a few iPad game companies: I worked for a company called Mindshapes, for example, which is an educational app company. I did animation for apps for them, and for the adverts for the apps."



So laid-back games work best for you?
Definitely, yeah. *Journey*, *Abzû*, *Monument Valley* I love. Those kinds of things where it's telling a narrative rather than challenging you with quests, or crafting; things that take a lot of time, and don't really get you anywhere. I prefer those shorter games. *Ico* was the first game I played like that while I was at university, and it was relaxing, but I enjoyed the narrative within the game. Then *Shadow Of The Colossus*, that's one of my favourite games of all time. It's intense at points, but then there's large portions of the game where you're just running around the landscape, which is quite relaxing.

> "With those games, it was difficult to abstract it so much, and still get the feeling of the game"

Is there one game that stands out to you in terms of its art?
That's tough, but if I had to choose, I would probably say *Shadow Of The Colossus*. It's just so unusual, and it tells a story in a way that only a game can tell a story. Rather than trying to ape movies or having loads of cutscenes, it tells a story in an interactive way.

Is drawing art based on videogames easier or harder than other subjects?
I think it's maybe a bit more difficult, because certainly with *No Man's Sky*, it's really difficult to sum that game up in one picture. That's what I realised when I was doing it. That's why I did four! *Shadow Of The Colossus*, you can sum that up in one image, I think. But I still found it difficult to get the style that I would usually do correct. If I was just drawing a scene in Japan, for example, I can abstract that quite a lot. But with those games, it was difficult to abstract it so much, and still get the feeling of the game. In some ways it's easier, because you've got the obvious reference points. But in other ways it's harder, because even *Shadow Of The Colossus*, there are so many parts of that game that you could choose. It was choosing the most iconic image, for me, that was toughest.

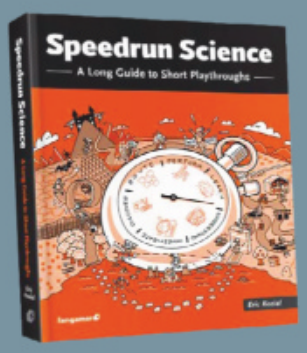
In the end I just chose my favourite colossus. I thought that was the best way to go about it. I started with maybe five, sketching and even putting them into vector, and thinking, 'Maybe this doesn't convey what this game is'. I whittled it down to the one from the point in the game where I can remember thinking, 'Wow, this is just absolutely incredible'.

What's your favourite game of all time?
The first game that got me into games properly was *Tomb Raider*. So probably it has to be that one. And I think that has influenced my taste in games. They're all fairly slow-paced, quite calm. ■



In January, a selection of Gilleard's videogame-themed work was displayed in a joint exhibition with Alexander Wells at Gallery 1988

KNOWLEDGE THIS MONTH



BOOK

Speedrun Science: A Long Guide To Short Playthroughs

bit.ly/speedrunbook

Another Awesome Games Done Quick is behind us, but if your speedrunning curiosity still isn't satisfied, Eric Koziel's book Speedrun Science: A Long Guide To Short Playthroughs might tide you over until the summer event. Speedrunner and computer engineer Koziel, aka Omnigamer, gives a potted history of the niche hobby (including some great photos of the very first GDQ) and community, examines the many motivations behind speedrunning and also offers a guide to getting started. Things do get fairly technical, fairly quickly, but Kari Fry's charming illustrative diagrams help keep things light. Preorders are live now, with shipping expected to start mid-to-late April – and handily, there's a free preview PDF to check out if you're uncertain whether it's for you.



VIDEO

BOTW Fan Animation

bit.ly/zeldaanim

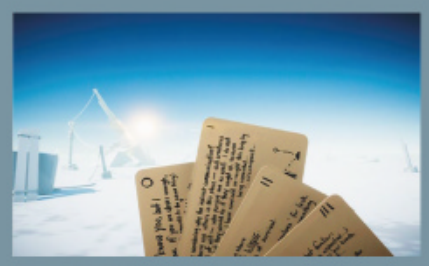
If ever there was an argument for an animated film based on *Breath Of The Wild*, this is it. Youyang Kong and Qianya Yin's short tale of Link saving a distressed Korok from the laser-eyed gaze of a Guardian is stirringly sharp work, a masterfully orchestrated rush of colour and momentum. Doudou's audio work includes some lovely true-to-game references; Sihan Yuan's music, meanwhile, wouldn't sound out of place in a real *The Legend Of Zelda* game. Given Nintendo's track record with this sort of thing, unfortunately, a cease and desist order seems inevitable. Enjoy it while you can.

WEB GAME

Foxhunt

bit.ly/foxpuzzle

Relax – this is nothing to do with sadists on horseback. Anomalina's firstperson puzzler introduces you to a beautifully animated vulpine friend before it skips off into the ether. To find it, you must solve cryptic hints and 3D conundrums scattered about a pale wasteland. Handwritten clues left by the fox are delightful. Puzzles start simple – rituals involving coloured light emanating from a tiny sun – increasing in complexity and becoming slightly more traditional over the 40-minute runtime. We're not fond of our view being wrenched around as we're forced to witness environment changes after a puzzle is solved; we wish this had a little of the subtlety of *The Witness*, a game from which it clearly draws inspiration. Still, this is magical stuff – and the ending took us entirely by surprise.



THIS MONTH ON EDGE

When we weren't doing everything else, we were thinking about stuff like this

MONITOR

Samsung CHG90

bit.ly/samsungchg

Samsung says this ultrawide monitor lets you see games "exactly as their developers intended", though we're sure plenty would disagree. Essentially two 27" 1080p monitors side by side, its 32:9 aspect ratio conveys quite the advantage in online games. You'll need a beefy rig to meet its native 3840x1080 resolution, especially if you want HDR; if you're prepared to drop £1300 on a new display, though, we assume you're already set. Still, if that's beyond you, you can simply enjoy using the best multitasker on the market.



continue

United we stand
The Division 2, coming exclusively to Epic Game Store. Bold stuff, Ubi

Bits and bobs
Fallout 76's patch notes are a riot. Farewell, comically heavy pins

Mercenary attitude
Some Game Pass achievements now pay Microsoft reward points

Too good to be true
Some overwhelmingly positive *Wandersong* reviews makes a Steam bug think it's fake

quit

United we fall
Not even the hardcore *Destiny 2* streamers can crack a new puzzle alone

Crack down
Modding in Japan is now illegal, and nets you a fine or jail time

Shoot to bill
A red-dot sight in *Black Ops IIII* costs 90p. Why not charge per bullet?

Imposter syndrome
Man pretends to be female *Overwatch* pro as "social experiment", sets us all back years



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DISPATCHES
MARCH



Issue 328

Dialogue

Send your views, using 'Dialogue' as the subject line, to edge@futurenet.com. Our letter of the month wins a year's subscription to PlayStation Plus, courtesy of Sony Interactive Entertainment



PlayStation Plus

Eternal flame

Robert August de Meijer (**E**328) finds himself short of games that allow him to be a benevolent Ubermensch with the elbow room to deviate when the mood takes him.

As it happens, I have just completed the Switch edition of the sublime *World Of Goo*. I can't remember a rush of omnipotence like this since *Lemmings*. Each puzzle element is not simply an object, but a person, capable of sleep, wonder, relief and, no doubt, countless other emotions. The puzzles are curiously involving as a result.

And the Goo Balls with which one builds a way to salvation must necessarily sometimes be sacrificed, sometimes left behind, so that a select few may be saved.
Such, I found myself thinking, were the dilemmas of Caesar crossing the Rubicon or Alexander sacking Persepolis.

A more recent, yet equally sublime puzzler points up the contrast: *The Witness* is a harder and, dare I say, on the whole more intellectual experience, its puzzles more varied and more challenging. But it is somehow a deader game. It does not provide quite the same thrill of saving relatable souls in each puzzle.

I like to think that the great Professor Nietzsche, if he had owned a Switch, would have played *World Of Goo* for an hour every night as he dreamed of the perfection of mankind in his Alpine retreat.
Neil Sewell-Rutter

Perhaps, yes – and then he'd have gone on the internet for some *Tetris Effect* port begging and a few Labo-related death threats. Enjoy your new PS Plus sub.

No diggity

Since you asked, no, I don't care much for a preview section in 2019. Neither did I in 1983: the correlation between hype and quality has always been miserable ever since there were rumours that *Pac-Man* was being made for the VCS. It's the only part of your magazine I don't always read.

But we're of course talking about how plenty of games can already be played (and purchased) before their release, and how to treat them. While some are still obviously incomplete, others are already fantastic. I would even argue that some games, like *World Of Warcraft*'s open beta, are best enjoyed when the community still feels like it's growing.

I do enjoy your in-depth features, especially when the developers get interviewed and we get to later either a) enjoy seeing their dreams having come reality, or b) marvel at the tragic outcomes. And if there's a game that catches your attention, please share.

> "Our early interests are influenced by our parents' hobbies until we develop our own"

But overall, I wouldn't mind shorter summaries of most previews, and more review-like features on games already being played, despite their status being in flux. With so many games on offer nowadays, I would rather read about something I can try out now than something that might one day be good.

I tell my friends that your magazine is like National Geographic for videogames. A magazine is best suited to deploy well-curated oversights of what has been happening, not what is to be. Ultimately, I think how good a game is, and not whether a game has a '1.0' in its filename, should be what gets it your attention. A review of *PUBG* months after everybody has already played it seems awkward.
Robert August de Meijer

Just the way you are

What use has a preview section in the year 2019? Well, curation. Besides games having longer lives now, there are just too many interesting new games to keep up with.

www.facebook.com/
edgeonline
Discuss gaming topics with
fellow **Edge** readers

I can't keep up with everything, nor do I want to. But you guys are paid to keep up with (almost) everything and have a passion for it in any case. So after reading this month's Hype, *Creaks* and *Sayonara Wild Hearts* are on my radar. I've been updated on *Felix The Reaper* and *Outer Wilds*. I know *Hytale* exists. And I know I can safely ignore *Ring Of Elysium*. This is all valuable.

The major problem is deciding whether something's been in Early Access for so long that it really doesn't qualify for preview any more. But you can afford to be ruthless – you've got enough potential material for an entire issue of previews every month.
Ron Dippold

Thanks both, and all the rest of you who got in touch with your thoughts on the future of previews. We'll continue to mull it over.

Party in the USA

Throughout *Red Dead Redemption 2* I've been wondering about Sadie Adler: should we applaud Rockstar for trying to create their first meaningful female character, or should we criticise them for failing?

When you first meet Sadie, she is a damsel in distress: a rival gang pillages her home and your gang takes her in. As the game progresses, it turns out that Sadie is handy with guns and knives, more comfortable in men's clothing or covered in their blood than in a dress, enjoys a good insult, and can step up as a calm and resourceful leader under severe pressure. Indeed, she gets very angry when she is restricted to traditional female roles.

This way of subverting a stereotype is a bit on the nose, but it could be worse. The real problem is that, after 60 hours, this is all there is to Sadie: the paragraph above describes almost all of her backstory and characteristics. The male gang leaders Dutch and Hosea, or even generic protagonist Arthur have stories that would fill this page, but Sadie is just someone who is unexpectedly, in the context of the game, good at some things men are good at. In fact, I think the problem goes deeper than that, because Sadie is also very traditionally attractive; she is the quintessential tomboy crush. So then the interesting question is whether Rockstar failed to write a meaningful female character because they did not know how to, or because they were cynically trying to manipulate both sides of the debate about the representation of women in the industry.
Leonid Tarasov

Surely being good at the things men are good at is the only way a woman gets to play cowboys in the Old West? Rockstar's main error with Sadie was that we simply didn't see enough of her – something we hope is fixed through DLC.

Give me everything

I am a collector. This extends to various aspects of my life – whether needing an artist's entire discography, or in my hoovering up of old game consoles. The release of *Super Smash Brothers Ultimate* therefore set alarm bells going once I had heard of the World Of Light mode. Of course I had to collect them all. Of course I had to unlock all the fighters.

Over the holiday period, the deed was done. The stats said 100 per cent and the timer said nigh on 26 hours. But something wasn't right. I didn't feel accomplishment.

Whilst most of the World Of Light levels are meant jokingly, they are also excessively easy. When I compare that to my physical collection of games, some of which took me weeks to find, it feels hollow, as if the lack of the chase renders the prize meaningless. Indeed, there are very few individual encounters within the World Of Light mode that I can remember. It therefore led me to consider what it is about collecting in general that I appreciate. *Alan Wake*'s flasks, for example, are meaningless, whilst *Celeste*'s strawberries are vital. *Mario Odyssey*'s moons are a tally, whilst *Banjo-Kazooie*'s 100 Jiggies and 900 notes are almost burned into my brain.

There's a fine line in collectibles between being over-indulgent and stingy. I'm curious as to what a post-*Odyssey*, post-*Smash* world will mean; it may very much be a case of more is less. In the meantime, I'm going to start cleaning up the *Assassin's Creed Origins* map.
Alex Whiteside

Collecting things is fun, though, no matter the challenge! Just ask this fello– ah.

Don't you (forget about me)

I first discovered **Edge** in the GameCube era when somebody told me about an exclusive feature on *Twilight Princess*. I ran to my local kiosk and bought the magazine for the ridiculous price of about £18. But it was all worth it. I've always loved physical magazines, and yours was of a special quality, so I decided to buy a subscription. **Edge** has been a staple throughout many years of my life, from high school to university to the creation of our own game company. Month after month, I could always count on you to deliver top-quality content about the future of interactive entertainment.

However, I have decided to not renew my subscription. It's not you, it's me. My media consumption is totally different now. While I've always enjoyed the great-quality content in your articles (especially about how games are made), I have a problem with my ever-increasing backlogs. Not just games, but books, articles, podcasts, magazines, etc. There is too much content and too little time to consume it. My magazines are slowly stacking up in a literal pile of shame. Time is getting more and more precious to me. **Edge** is definitely time well spent, but I also have to be realistic about what I can actually manage to read.

It saddens me to say goodbye; we have been through so much together. I sincerely hope you'll keep fighting for physical magazines, since digital will never be able to replace the feeling of sitting with printed pages in your hands. Thanks for everything, **Edge**.
Gustav Dahl

We had such bright hopes for 2019, too. 2020 is *definitely* going to be our year. ■



STEVEN POOLE

Trigger Happy

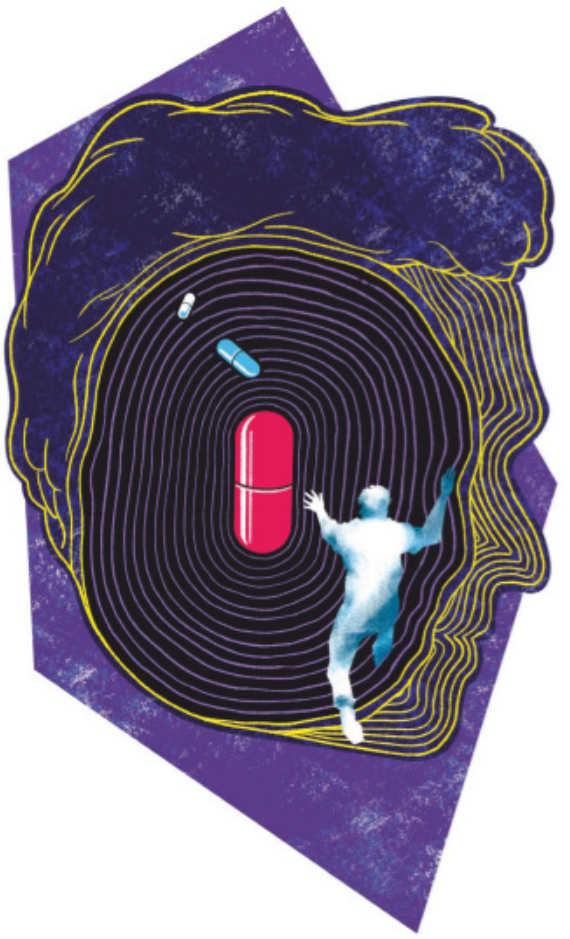
Shoot first, ask questions later

The dream of "interactive cinema" has been around for more than half a century. In 1967, the Czech film Kinoautomat was screened at Expo 67 in Montreal, and the action was stopped nine times so that an onstage moderator could ask the audience to vote on what should happen next. The notorious home-invasion sexploitation FMV game *Night Trap* (1992) led directly to videogame age ratings, and more recently there have been more sophisticated footage-based games such as *Her Story* (2015), and the occasional high-profile experiment such as Steven Soderbergh's Mosaic, a 2017 TV thriller starring Sharon Stone that could be watched in linear sequence or consumed non-linearly through an app. But if you put something on Netflix, it becomes mainstream. Has the age of the interactive movie finally arrived?

Bandersnatch, a nihilistic Black Mirror joint, is billed as an "interactive Netflix film", but it's also in thrall to videogames, and in some ways is itself a game about games. (If your PS4 functions as your portal to Netflix, the film uses images of DualShock controllers during the tutorial.) The word 'Bandersnatch', taken from Lewis Carroll's poem The Hunting Of The Snark, was the title of a much-trumpeted but never-released 'megagame' from Imagine Software in the 1980s, and the film's hero is an aspiring ZX Spectrum programmer in that era.

As we would expect from a Charlie Brooker-branded story, there are many game in-jokes. A star programmer releases a game called *Metl Hedd*, starring a mech that looks very like a bad drawing of a Metal Gear. And the hero is inspired by a fictional version of the Choose Your Own Adventure books, featuring numbered paragraphs with choices at the end and multiply branching storylines.

But Bandersnatch is not a Choose Your Own Adventure movie, despite the periodic binary choice points with a stress-inducing countdown timer. And it couldn't be. To film the hundreds of scenes in a Choose Your Own Adventure book would be fantastically expensive, leading to a budget fatter than the most bloated blockbuster. The arithmetic is simple: if you aspire to truly independent, multiply branching storylines, then after only 14 binary choices, you need to have written 2^14 or 16,384 scenes. It can't be done.



"A story about the limitations of choice might be the only story you can tell if you want to give the audience choices"

So Bandersnatch attempts to make a virtue of this limitation. Plot strands recombine (as they do even in the Choose Your Own Adventure books), and the viewer is forced into certain decisions and funnelled down a small set of narrow paths to one of five different endings. Yes, you can choose to have Frosties or Rice Krispies for breakfast, or to listen to the Thompson Twins or Now That's What I Call Music 2, but once you are being asked whether you want to throw away some drugs or flush them, to throw tea over your computer or destroy your computer, it's clear your agency has been compromised.

And this becomes the theme of the story itself. "There's a cosmic flowchart that dictates where you can and where you can't go," announces the star programmer Colin, while the hero increasingly suspects he is being monitored and controlled by some unseen force – which, of course, is you, the viewer. Brainwashing conspiracy narratives, in this universe, turn out to be true.

Well, fictional characters have been suspecting they might be fictional characters in theatre and novels for centuries. And a story about the limitations of choice might be the only story you can really tell if you want to give the audience choices. Half a century ago in Kinoautomat, too, whatever the audience voted for the hero to do – to let a woman in a towel into his home, to ignore a policeman, to punch a porter – the protagonist would end up in an apartment that was on fire. It was read as a satire on the meaninglessness of political choice under communist rule, and – as we can also read Bandersnatch – on the meaninglessness of consumer choice everywhere.

So it seems that the promise of giving an audience choices, combined with the practical-mathematical impossibility of ensuring that every choice really can make a difference, drives the creators of such works themselves down converging paths to a single kind of story about how we have no choice at all. And neither do they. The unfeasibility of creating truly interactive movies leads to a genre in which all interactive movies are about the limits of our ability to change the world meaningfully. It is therefore a profoundly conservative and despairing genre.

Steven Poole's Trigger Happy 2.0 is now available from Amazon. Visit him online at www.stevenpoole.net

Illustration **kaeru.com.ar**

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NATHAN BROWN

Big Picture Mode

Industry issues given the widescreen treatment

The inevitable day has come: my five-year-old has annexed my Switch. I needed it at work one day while he was on his Christmas holidays, and I was out for drinks that night. When he found out he wasn't getting his post-dinner *Mario Kart 8*, there were *scenes*. And so over the Christmas break I barely got a look in, while he spent his screen-time budget on his favourite pastime: sitting on the starting grid until he's in last place, so he'll get the best items. He finishes in ninth place, or thereabouts, but at least he's got a Bullet Bill or two out of it. I wouldn't mind, but he's doing it online as well. I have a reputation to maintain.

So, with Switch, and the gaming TV, so often out of bounds (and no, multiplayer isn't an option, as I would absolutely rinse him, and we worry enough about his self-esteem as it is) I've had to get a bit creative when I also want to play something of late. Given all the recent fuss around Google's Project Stream and Microsoft's xCloud, I thought I'd check in on the state of cloud gaming.

It's something I've dabbled in, but always walked away from disappointed. OnLive was bobbins. I tried GeForce Now just after launch, and it was better than OnLive but had pretty much the same game library, and there are only so many five-year-old Warner Bros games a man can feign interest in. In the years since, technology has improved, my bandwidth has trebled, and some of the biggest companies on the planet are touting it as the future of games – the moment the barriers come down and everyone on the planet can play the industry's best on any device. So, to borrow a phrase from the five-year-old, are we there yet? The short answer is: no. The long answer is: *fuck*, no.

I tried Shadow first, a French company whose dedicated Shadow Box I've had kicking around for a while. Part of Shadow's USP is that it gives you your own remote Windows 10 PC to connect to, rather than just a server – but this turns out to be a curse before it's a blessing. I'd run the setup process some months previously, and it had crashed; booting it up, I find my remote machine has succumbed to a user-account bug and needs a full reinstall. Naturally, I didn't know the serial number for my copy of Windows, since it's sat in an underground bunker in Paris. Support were great, but when I finally got in, the mouse lag was so bad I quit before I could even install Steam.



Illustration **kaeru.com.ar**

There remain several fundamental issues with cloud streaming that will, I think, put off the mainstream user

I'll admit I'm an edge case. I am not just trying to stream a game; I am trying to do so to a 3840x1080 monitor. If something looks or feels slightly off, I will notice, because it's my job to spot these things. I also live in an old house with thick walls and ancient wiring. But there remain several fundamental issues with cloud streaming that will, I think, put off the sort of casual, mainstream user that these services hope to attract.

I turned again to GeForce Now, whose core library is still small and dominated by old *Lego* games. Yet the main menu is full of games: some free-to-play ones via Google Play, and paid games too. Big-name titles can be bought through GeForce for streaming; others are shown as being available through Steam, which can be installed on a virtual PC (likewise Battle.net, Epic Games Store and so on). Even as someone who knows what they're looking at, it's confusing. It feels less like Netflix and more like a bootleg Kodi install. What can I actually *play*?

I'm here for *Destiny*, obviously – but I don't stick around for long. While running at 60fps, the screen appears smothered in Vaseline and there's a couple of frames of input lag. It frequently loses connection, in one instance leaving me spinning on the spot for three seconds during a boss battle. I run a network test; apparently my network is 'optimal for streaming'.

I'll spare you the details of what happened next: suffice it to say I fell down a rabbit hole of router placement, different kinds of CAT5 cable and the discovery that the homeplugs I bought a couple of years back are now obsolete. Shadow is back on a shelf, Shield is a media box again, and I'm even more suspicious of Microsoft and Google's confidence in the cloud than I was before. It's not just about accessibility in the most literal sense of the term; if this is really to take off it must also be intuitive, straightforward and deliver results comparable to the real thing. I get the appeal, I appreciate the ambition, and I hope we get there, but for now I think a little scepticism is healthy. After all, there's a fine line between blue-sky thinking, and having your head in the clouds.

Nathan Brown is **Edge***'s editor. If you encounter his eldest in Mario Kart 8, don't go easy on him. Kid's gotta learn*

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ALEX HUTCHINSON

Hold To Reset

Building a new game, a new studio and a new life from the ground up

Once, a developer friend who used to run the Monty Python fan club in the US asked John Cleese whether he thought he could make a funny game, to which the comedian said no – it wasn't possible. The most essential ingredient in any joke was timing, he said, and videogames had given up the possibility of a well-timed laugh the moment someone pressed Start and we let them walk left instead of right.

I've spent a lot of column inches pointing out that I think a successful game needs to know what its core values are, and to try as hard as it can not to compete with heavy hitters in the same area. Now that we're announced, though, it poses a question: where are we putting our dollars and our effort? Our answer to that, with apologies to Mr Cleese, is humour. We believe that although there have been a few funny games, there haven't been many that were funny because of their interactive elements, instead relying on cinematics or scripted sequences. I believe this is selling our medium short. Humour in games doesn't need to be about telling the player a joke; it should be about getting the player to tell the joke themselves.

This might sound far-fetched, but it's something various titles I've worked on have managed to pull off. In *The Sims*, an early directive from Will Wright was to make certain that if players were going to fail – and they were – then we could take the sting out of it by making those failure cases funny. So in the original, the kitchen was scripted to catch fire basically no matter what the player did. Watching their Sim panic and potentially burn to death did two things: it taught players to prepare for negative possibilities in their house building, and it made them laugh and emotionally connect with the game. In *Far Cry 4*, any time a poorly lobbed Molotov cocktail ignited a passing bear which then vented its rage on the player's co-op partner, the room would erupt in laughter.

To me, these types of comedic moments feel unique to our medium: they required



"There have been funny games, but there haven't been many that were funny because of their interactive elements"

input from the player, they were never scripted but remained systemic within the rules of the universe, and they provoked unintended but understandable consequences in the world. And they were funny. Really funny. *Videogame* funny.

All of which made us at Typhoon begin to ask: what if we tried to put that type of moment at the core of the experience, rather than at its edges? How could we create tools and toys that encouraged unintended consequences to the player's actions?

One idea we're exploring is making sure that at least some of our tools will perform one action that the player would want if they executed it correctly, then a second behaviour should occur if they use it poorly. We're still in development and making certain all this works in the context of the game, but the premise is simple. What if you could, for example (and fear not, fair publisher, this is not a real scenario in the game), put down a sprinkler system that would protect your habitat from fire-breathing critters? A good solution for the player. But what if you put down too many, and they all activated at once and flooded your generator, which, when you tried to shoot some of the fire-breathing critters, exploded and hurled you halfway across the map? Would that earn a laugh? And if so, can we improve it?

I think a key element in a videogame joke is the player's ability to connect it to their actions, so we can't have too many steps and we can't have it take too long from the action to the result. Being killed by a randomly exploding generator is lame. Being killed by a generator that exploded because you made a mistake is funny.

If we can make the basics work then the challenge becomes how many of these we can leverage while maintaining a sense of cohesion in the world, and a connection between the player, their actions, and the consequences. Our hope is that by piling these types of mechanics and systems in the game, we can differentiate ourselves from other similar titles out there, and provide a game with a serious theme that's trying to make you laugh with everything it's got.

It's probably dangerous for me to put this hope in print as there's nothing less funny than a joke you need to explain, but I think that humour in games is such an unexplored space, with such huge possibilities, that I'm willing to roll the dice. At the very least, if *Journey To The Savage Planet* makes you laugh, and you feel that you told the joke, the endeavour will have been worth it.

Alex Hutchinson is co-founder of Montreal-based Typhoon Studios. He can be found on Twitter at @BangBangClick

Illustration **kaeru.com.ar**

Edge

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HYPE

THE GAMES IN OUR SIGHTS THIS MONTH

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Explore the iPad edition of Edge for extra Hype content

With or without you

Videogames are collaborative works. While we may romanticise the notion of the lone developer toiling away in their back bedroom, nothing ever makes it into your hands without other people touching it first, be that a pal offering feedback through development, the QA team trying their best to break a game in half or the store staffer who puts the finished product on a shelf.

Leading the Hype charge this month is *Tom Clancy's The Division 2* (p34). It's the sequel to a game made, like so many others, beneath a veil of secrecy – but this second outing for Ubisoft Massive's shooter-RPG is being built explicitly to cater to the needs and wants of the first game's highly engaged community. Supergiant Games is doing similar with *Hades* (p40), its first Early Access game – the maker of *Pyre*, *Bastion* and *Transistor* is discovering what happens when it makes a game in full view of its customers.

On a smaller scale, *The Outer Worlds* (p48) sees the creators of *Fallout* reunite for a systemic RPG that, in this post-*76* world, could barely have come along at a better time. *Rage 2* (p44), meanwhile, brings together FPS artisan Id Software and open-world explosion specialist Avalanche Software for a game that does exactly what it says on the tin – a better open world than Id could make alone, and Avalanche's most satisfying shooter to date.

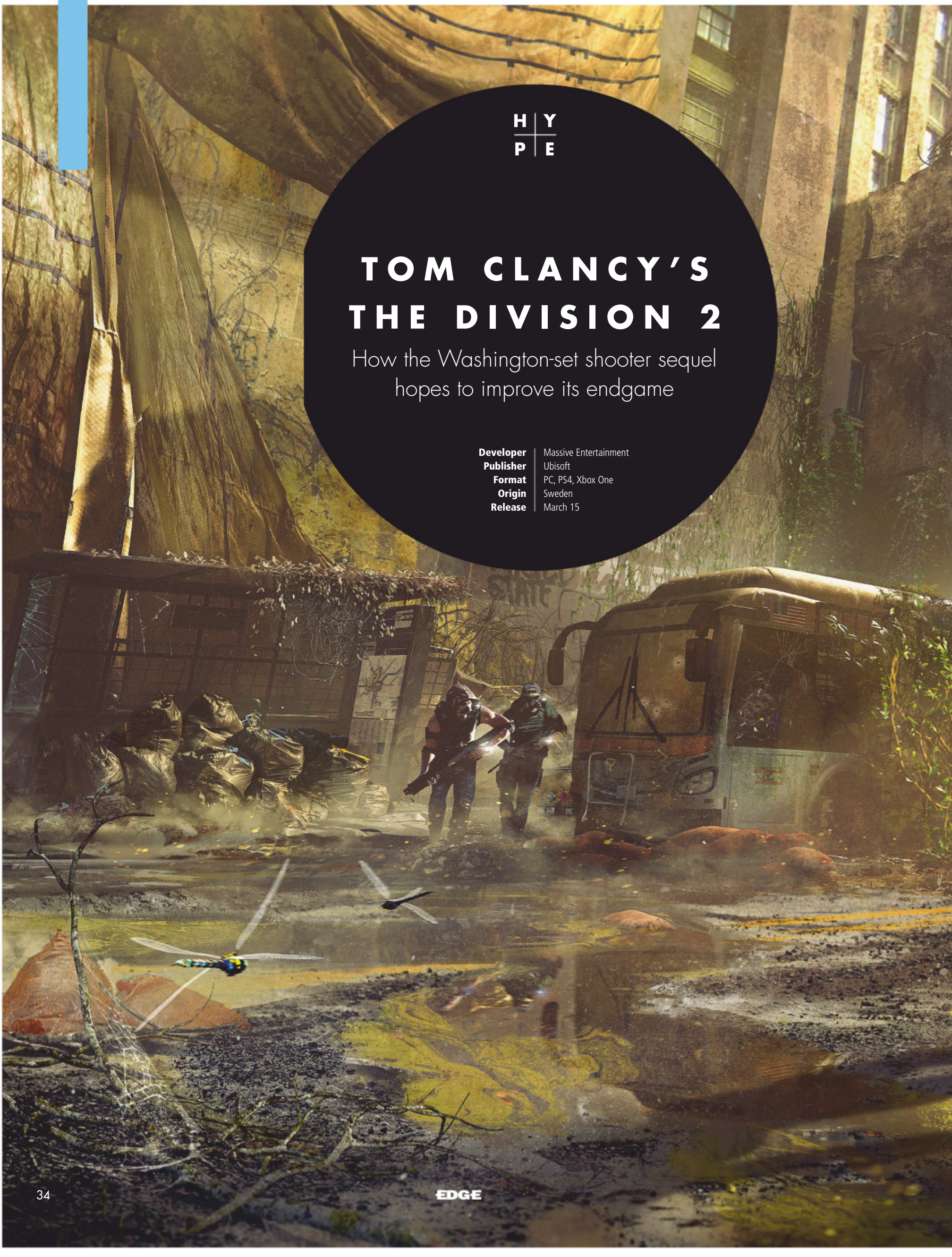
Even Patrice Désilets, who's been running away from Ubisoft, with mixed success, for the best part of a decade, is getting in on the act. He's making *Ancestors: The Humankind Odyssey* with a team of 30 for Private Division, a supportive, yet ultimately hands-off publishing partner. It's not about it being dangerous to go alone, necessarily – just about finding the right balance for the project in question, and the people trying to make it.

MOST WANTED

Kingdom Hearts III PS4, Xbox One
With review code arriving a shade too late for inclusion this issue – Tetsuya Nomura doesn't like 'em small, you know – you'll have to wait a few weeks for our verdict on one of the longest development projects we've ever reported on. Review next month, unless it's *really* massive.

Mario Kart Tour Android, iOS
Nintendo never plays by anyone's rules but its own, but it may have gone too far with *Mario Kart Tour*. You announce a smartphone game, and then do nothing for a *year*? Madness. The wait's almost over: release is due before the end of Nintendo's fiscal year in March.

Star Wars Jedi: Fallen Order PC, PS4, Xbox One
A Christmas replay of *Titanfall 2*, prompted by an irresistible PSN price cut, reminds us of the abundance of creative talent at Respawn. EA needs a Star Wars game shorn of scandal and dripping with quality, and this is the studio to deliver it.



HYPE

TOM CLANCY'S THE DIVISION 2

How the Washington-set shooter sequel hopes to improve its endgame

Developer	Massive Entertainment
Publisher	Ubisoft
Format	PC, PS4, Xbox One
Origin	Sweden
Release	March 15



The Division 2's enemy archetypes cover a wider gamut – from bullet sponges with detachable armour pieces to more high-tech opponents who deploy drones and exploding RC cars ▶







ABOVE **You'll still need to extract the best Dark Zone loot via helicopter, which will entail defending an area against both AI waves and any rival players who fancy their chances.**
TOP RIGHT **AI factions will fight for control of Dark Zones. You can sneak by while they're fighting, or linger to polish off the victors for some easy loot.**
MAIN **There's no longer proximity-based VOIP chat from rival squads in the Dark Zone, so you at least won't have to worry about bad language while you're getting shot by your friends.**
BELOW LEFT **Among the planned recurring public events are Occupied Dark Zones, which up the stakes drastically by enabling friendly fire by default and retaining level differences between players.**
BELOW RIGHT **The game's PvP maps are solidly made, but nothing to write home about so far – the two we've sampled are symmetrical, with obvious flanking routes**





HYPE

TOM CLANCY'S THE DIVISION 2

The Division 2 is about "saving the soul of America", in the words of creative director **Julian Gerighty**, and what it means by "soul" is essentially "loot". Set in a plague-ridden Washington DC seven months after the first game's virus outbreak, it's an always-online shooter in which government agents fight to reclaim a ravaged world while profiting from its disorder – a portrait of a fallen society whose ideals of self-reliance and unchecked consumption are alive and well in the game's own progression systems.

It's an experience in which the main characters aren't really people, but weapons: a procession of exquisitely recreated shotguns, drones, riot shields and crossbows, bristling with modifiers such as toxic ammo or faster reloads for every critical hit. The game's acquisitiveness is complemented by the pleasing heft of its thirdperson combat, each player scurrying from cover point to cover point under the weight of a bulging backpack. That this doesn't expand in proportion to your rapidly filling inventory feels like a missed comic opportunity.

The original *Division* enjoyed a strong following – according to Gerighty, more players have finished its main storyline than that of any other Ubisoft title – but was criticised for a lack of endgame activities. The sequel's mantra is accordingly 'the same, but more'. There are new character subclasses with signature weapons and skills to unlock, and raid missions for veteran squads to sink their teeth into. There are team deathmatch and objective-capture modes with distinct reward paths, and three different incarnations of the original's hybrid PvPvE Dark Zones to comb for rarer kit. New opportunities for pillaging aside, the game's open world now includes civilian settlements that evolve alongside your home base, throwing up side missions as you roam. The Dark Zones have also seen much development, with introductory narrative missions plus a complex rework of the original's concept of banditry.

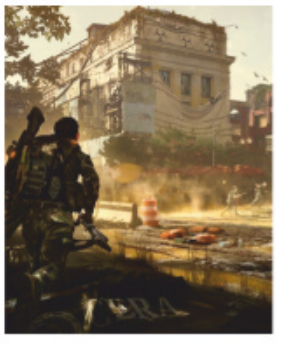
Many of the new features can be traced to the first game's updates. "It's definitely been a journey," lead designer **Keith Evans** tells us. "I joined the team a little bit before the launch of the first game, so I was involved in leading the design on contributions to endgame over all three years. And the main lesson we've learned is that players kind of devour content. So the biggest thing that we've done design-wise on *The Division 2* is to start with that mindset. It's not just about that level 1-30 journey, it's not just about reclaiming this beautiful 1:1 version of a city. It's about making sure there's a ton of interesting things to discover, and that the world is much more replayable once you hit endgame."

Much of that world is appealing for its own sake. In a medium saturated with apocalyptic settings, few can rival Massive's creations for grandeur and delicacy, though it's sometimes hard to see your surroundings beneath the overloaded high-tech HUD. If *The Division 2*'s landscape is discreetly made up of spawn-huts and cover, the art team's rearranging of Washington DC is splendid nonetheless, the vast greens and marbles of the Mall giving way to faded European townhouses and hardscrabble post-industrial districts.

Even without the expected audio diaries and holographic 'echoes' of past events, it's a setting that says a lot about previous and current residents, one that challenges you to distinguish new growth from decay. During our hands-on we pass roadside verges converted into allotments, and deserted checkpoints plastered with missing-person fliers. There are the previous game's signature heaps of trash bags, melting into the contours of alleys and hallways, but the move from wintry New York has brought about an explosion in wildlife, with frogs and dragonflies adding texture to the soundscape. The game's stylistic range is particularly pronounced in Dark Zones, each of which has its own origin story. In the wreckage around Union Station, sunbeams dig sickly orange trenches through a chemical haze left by a botched clean-up operation, while swathes of tarpaulin cover the high rises of the Wharf.

It's an experience in which the main characters aren't really people, but weapons

The Dark Zones – areas worst affected by *The Division*'s virus – remain the game's most dangerous regions. They are grandiose



Spec savers

Make it all the way to *The Division 2*'s endgame and you'll unlock character 'specialisations' woven around three customisable weapons – a splashy grenade launcher, a 50 cal. sniper rifle and a crossbow. They push particular styles more strongly than the main levelling tree, where you can mix and match abilities and kit. "There's a full new progression pack to keep levelling up," lead designer Keith Evans tells us. "It gives you additional skills and you can power up the weapon. You get different grenade types for the launcher, you can unlock special mods on certain skills that are only available when you're using that specialisation, to help you dial it in more. It affects every part of your build in the end."









TOP **The game is just as solo-friendly as the previous iteration – there are (so far) no multiplayer-only activities – but you'll definitely get more out of it if you join a squad.**
ABOVE **The new loot system puts more emphasis on collecting complete gear sets or 'brands' – wear every single piece from a brand, and you'll activate a bonus**

TOP **Downed players can drag themselves into cover before they're finished off. You can revive them at no penalty – and on the flipside, use downed enemies as bait.**
ABOVE **The game adjusts the odds by applying handicaps or dropping supplies during competitive multiplayer to help out losing teams. The effects of this are rarely decisive, however.**
RIGHT ***The Division 2*** **boasts a very accessible clan system – you can apparently create one with three clicks. Clans also get custom-furnished halls in player bases**



"social experiments", as Gerighty puts it, that "span the whole range from greed to murder", where players are free to turn on each other while fighting the AI. They are, however, a lot safer this time around thanks to a reworking of how PvP is triggered and a more elaborate, mission-based superstructure. Rather than being mandatory, friendly fire within Dark Zones can be toggled on and off. This means that would-be griefers lack the advantage of deciding when to start a fight, and also means you'll never enter PvP accidentally when allies stray into your line of fire. The game also collapses differences in level between warring parties, where its predecessor was content to let your stats decide the outcome.

There are now several flavours of 'rogue' status. Gun down another player and you'll be slapped with a bounty and tagged red on the map for other players to track. Kill six players, and you'll be tagged gold and plunged into a manhunt. This unlocks three terminals around the Dark Zone which you can use to either end the manhunt or hack, one by one, for more valuable rewards should you weather the wrath of other agents. Each hack requires a player to hold the button for a few moments, which is easier said than done when the bullets are flying (fortunately, the percentage doesn't reset when you're interrupted). The real feat, however, is getting from terminal to terminal, as rivals lay ambushes or manoeuvre to catch you from behind while you're duelling NPCs. We have a rough time in the Wharf thanks to its denser infrastructure, at one point finding ourselves sandwiched between teams in an alleyway strewn with car hulks.

A manhunt doesn't end when a member of the rogue team dies, but your rogue status must 'resync' before you can rejoin the proceedings. This serves two purposes: it makes the loss of a teammate more of a handicap, and it means defensive fixtures near Dark Zone saferooms won't immediately target you when you respawn. Less aggressive players can indulge their anti-social instincts by stealing from certain supply caches, which tags you on the map in grey. The appeal of theft is less for the fact that you can now take many items (including weapons dropped by AI foes) out of the Dark Zone yourself, rather than summoning a helicopter to extract them for decontamination. But stealing does expose a set of terminals you can meddle with to gain access to the Thief's Den, a lair for unsavoury sorts with unique vendors and rewards.

It's a comprehensive expansion and clarification of one of the original's most divisive aspects. But is it really an improvement, or a betrayal? The fear of attack without warning in *The Division*'s Dark Zone was integral to differentiating it from the comforting pulse of level-ups and loot-drops elsewhere. For all the plot's talk of cultural breakdown, it was the one area of Massive's New York that felt genuinely lawless, the one place that pushed back against the game's deadening ethos of farming for the means to be a better farmer. If the new rogue system makes PvP less obnoxious, it's also difficult to think of this as a "social experiment" when so many ways of misbehaving are preordained, baked into the very design. Massive might have done better to move the needle the other way, preserving the atmosphere of threat while finding other ways (such as much smaller headcounts per session, or cycling respawns) to stave off undue camping and griefing.

Dark Zones are a lot safer this time thanks to a reworking of how PvP is triggered

The Division 2 needs that breath of toxic air provided by Dark Zones, if it isn't to be just another vat of content waiting to be sucked dry. Sadly, if the Dark Zones have multiplied they also feel like they've slipped back into the fabric of the game's open world, becoming more subservient to its rhythms. Still, perhaps the game will break out of that kill-gather-upgrade cycle with its raids, which are designed for up to eight players. These are "totally different to what we did in the first game", Evans says, not least because, as with *Destiny*'s best raids, they don't hinge on enemy numbers, character level or quality of equipment. "I can say that it's something we've been working on for a long time. It's not at the level of a mission, where it's just about upping the intensity – we want this to be something that even players who own the best gear have to jump in and really discover." ■



Context sensitive

In keeping with conversations at E3 2018, and for all Julian Gerighty's invoking of a country's "soul", Massive is reluctant to discuss the obvious politics of a game about a civil war in present-day America. "The setting, the story of what happened in the first one and how that progressed to the next game, I think there's a lot you can read into," lead designer Keith Evans says. "I think art like this is part of a broader conversation about what's happening in the world, but we're very focused on telling the story of our game, how it would progress after New York. And not making any specific political statements – but there's a lot for players to read into, and that's what people do."

H Y
P E

HADES

Supergiant's Early Access dungeon-crawler is in diabolically good shape

Developer/publisher	Supergiant Games
Format	PC
Origin	US
Release	2019



You would think that Early Access would be anathema to such a developer as Supergiant. This is a studio, after all, that has earned its stripes making exceptionally polished, complete games that tell stories with a clear beginning, middle and end. Early Access games, meanwhile, are by definition unfinished, and often rough around the edges. So, as we speak to *Hades*' writer and designer **Greg Kasavin**, there's really only one way to start. "Why?" he repeats back to us with a chuckle. "It's an excellent question."

It's perhaps tempting to imagine that there were commercial reasons behind the decision to put Hades into Early Access. Maybe *Pyre* didn't sell well enough and the studio needs money in the bank. Yet that doesn't fit with what Kasavin has already told us. And his response is consistent with what he said when we covered the making of *Hades*' predecessor a year ago: "I think it's absolutely the case that each of our games has been, in some respects, kind of a response to the previous one."

"The reason we really wanted to do it was to give ourselves the opportunity to create a living game, which we haven't been able to do before," he says. "All of our previous games have been one-and-done affairs. This time we were really interested in designing a game around replayability. We're doing this not because we think it's intrinsically superior to what we've done in the past; we're doing it because it's different, and new."

Early Access has a bad rep, and not without reason. But there are exceptions, Kasavin notes: games that arrived in good shape and only got better. "It's everything from *Darkest Dungeon* to, more recently, games like *Dead Cells* and *Slay The Spire*." He's speaking from personal experience, having bought all three of those at or close to launch. "I felt when I played them for the first time that they were already in an outstanding place and well worth the time and money that I spent. It wasn't like a promise that one day they'd get good."



Greg Kasavin, writer and designer

***Hades* is not,** as Kasavin puts it, "a way for players to test our alpha build". It's been launched at a similar price point to *Pyre* and *Transistor*, and he believes the game needs to demonstrate a similar level of quality to live up to the standards players expect from the studio. Rather than the whole game in rough shape, what *Hades* is now is a smaller slice of the pie, but one that's been put together with care. "Instead of forcing players to use too much of their imagination about how it might even be good at all, it should implicitly make a promise to players of what the rest of the experience is setting up," he says.

It should, and it does. *Hades* is comfortably one of the most well-rounded ▶



Athena's Divine Strike ability lets you return incoming projectiles to sender with interest. That might change, since Supergiant is issuing frequent balance patches



Early Access games we've played. As with *Pyre*, artist Jen Zee has conjured another vibrant vision of purgatory, though this time it takes the form of an isometric labyrinth made up of connecting chambers. You'll engage in conversation with a variety of mythological favourites before and occasionally between encounters, making it a chattier kind of dungeon crawler – though these brief dialogue exchanges and narrated observations add useful context while breaking up the action. Despite the title, you're actually cast as Zagreus, son of Hades, whose ultimate goal is to escape this underworld and reach Mount Olympus. Along the way he'll get help from other Olympians, who'll bestow upon him a range of powers to help him defeat who and whatever lies between him and the exit. Blessed with a dry, sarcastic wit, he's pretty good company.

He's not a bad fighter, either. *Hades'* brisk, lively combat has elements of *Bastion* and *Transistor*, but in its precise feel it's arguably closer to *Hyper Light Drifter* – certainly in the way it encourages you to stay in constant motion, and to wait for an opening before launching into the fray rather than simply hammering the X button. After combos, specials and dashes, there's a split-second window of vulnerability, which forces you to choose your attacks carefully, especially against larger opponents, who have a long windup but hit with brutal force. Alongside them you'll find angry skulls that launch themselves at you, witches that fire projectiles (which, with certain abilities, you can deflect back at them) and crystals that move out of range to fire lasers that track movement, encouraging you to take them out quickly or else put a wall between you while you deal with the rest. If reckless aggression is often punished, staying on the front foot has benefits – you can slam enemies into walls for extra damage, knock them into traps or dash behind them for a backstab bonus.

Any hit you take always feels like your fault: enemy spawns and tells are readable

To a point, there's an element of fortune in how long you survive. Once you've defeated however many waves of opponents a room deigns to put in your path before the exit unlocks, your reward can be anything from a pile of money to a new favour from the gods. Aphrodite's powers can turn your enemies weak at the knees, while Zeus might let you bring down lightning strikes or have regular attacks give nearby monsters a jolt. But you won't always get health when you most need it, and a rare power that lets you deflect incoming attacks will always be more useful than a common one that merely boosts your dash. Still, any hit you take always feels like your fault: enemy spawns, tells and explosion radii are readable even when the action is at its most chaotic.

All of which makes it difficult to resist one more run. It helps that *Hades* doesn't take itself too seriously, despite each run starting with Zagreus emerging from a pool of blood. Kasavin believes the approach is in keeping with the genre. "I find Roguelikes to be kind of a slapstick experience. You inevitably make some kind of boneheaded move, and you can't believe you did that. And so you try again, and then sometimes you feel awesome. You go between feeling like the ultimate badass and a total dope. And having a storytelling tone that essentially reflected that just felt true to the experience of playing such games."

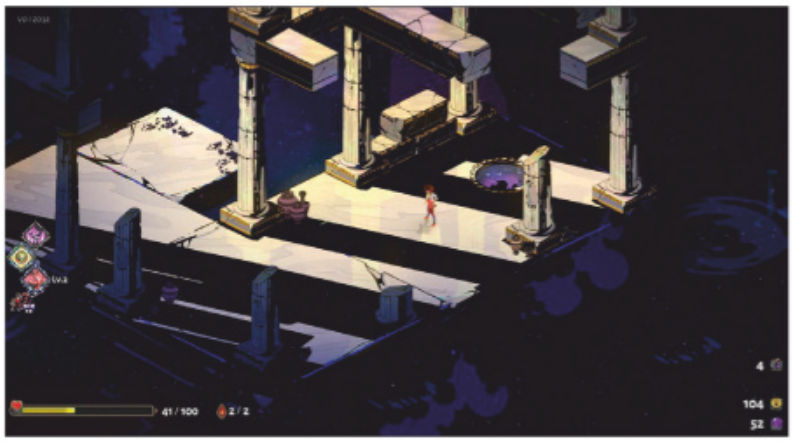
Hades should be in Early Access for at least a year, Kasavin reckons, which would bring it to a similar total development time to *Transistor* and *Pyre*. In fact, he says, the whole process has felt like a natural extension of the way Supergiant has always revealed its games. "Before, we'd take playable code to PAX or whatever and let hundreds of people have a shot, and then we'd go back and work on it for another year or something like that," he says. "Here it's just a chance to let many more people play it at a stage where we feel it's ready to be announced, and ready to be played." Indeed, we've played many apparently finished games that don't feel as ready as this; it turns out Early Access suits Supergiant rather better than anyone could have anticipated. Sometimes, it seems, it's better the devil you don't. ■



The family from Hell

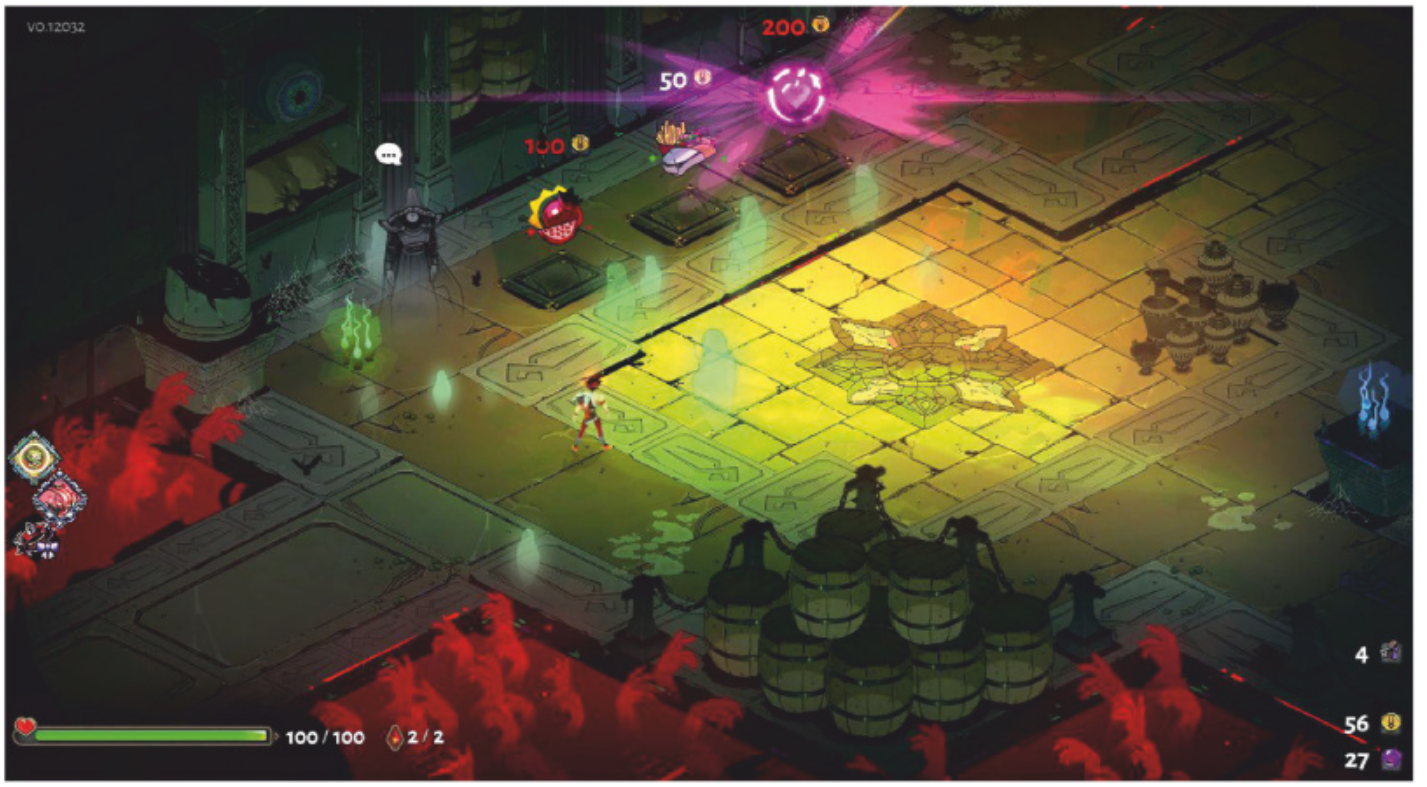
This is the first Supergiant game not to use original characters, which Kasavin suggests has been a more creative challenge than creating a new world from scratch. "The opportunity to work with Greek myth was really exciting to me," he says. "I felt strongly that this was an opportunity to represent these characters in a way I personally haven't experienced. Our hypothesis is that part of what made these characters so compelling for so many thousands of years is that they're a big, dysfunctional family, and we relate to them that way." These familiar names and faces make *Hades* more immediate, he suggests. "Games like *Pyre* and *Transistor* can be a lot for players to absorb, because of the way we try to push you into the action pretty fast."







TOP **The shield is a solid pick: it has a close-range bash with knockback, and it can be thrown rather like a Frisbee, giving you the opportunity to pull off impressive trick shots by bouncing it off the level furniture.**
ABOVE **In some chambers you can choose to test yourself with a bonus challenge: here, you might have to survive for a given amount of time, or kill spawning enemies quickly**





TOP **Chaos' corridors can occasionally be accessed via a portal. A random reward awaits, though to get here you'll need to sacrifice a small amount of health.**
ABOVE **Charon, Hades' ferryman, isn't a talkative sort, but he has some useful goodies for sale – assuming you can afford them.**
LEFT **This giant mirror is where you unlock permanent upgrades, from chained dashes to more powerful backstabs, each of which can be augmented by spending more Darkness crystals**





Wellspring, Loosum Hagar's dusty, ramshackle hometown, is a warren of cyberpunk billboards and rusty metal. Its citizens are a good source of more trivial quests, plus the odd full-fat sidestory

HYPE

RAGE 2

Avalanche and Id team up to return to the apocalypse

Developer	Avalanche Studios, Id Software
Publisher	Bethesda Softworks
Format	PC, PS4, Xbox One
Origin	Sweden, US
Release	May 14







TOP **Kills charge up your suit's Overdrive mode, which increases damage, suffuses your vision with hot pinks and in a particularly pleasing flourish, thickens the weapon audio.**
ABOVE **The holographic barrier won't last long against heavy artillery, but usually buys you a few seconds to reset a cooldown or prepare a combo**





TOP **Garden-variety muties aside, you'll fight cyborg goliaths, flying Authority vehicles and tanks, many sporting glowing weak points. Humanoid bosses can often be stunned.**
ABOVE **The dialogue is knowingly awful pulp sci-fi patter, brought to life by voice-acting that might curdle milk. As one character observes: "You're fast as a shark and twice as deadly."**
LEFT **Other drivers and pools of toxic waste aside, the greatest threat on the deathrace circuit is the goofy handling. Fortunately, vehicles flip themselves upright when capsized**

HYPE

RAGE 2



An Avalanche open-world game that moves and fights like an Id Software shooter, *Rage 2* is about as enraging as a well-padded armchair. It's a clear-cut piece of commercial arithmetic, a franchise handed off to a younger team with proven tech and a shared love of bloodshed, and while the results are engrossing, they're yet to excite.

The game is set 30 years after its predecessor's events on a somewhat lusher post-apocalyptic Earth, now bursting with plant life in addition to wilting scrapyards and baking desert highways. It stars Walker, a musclehead equipped with Ranger armour, and sees you fighting the first game's resurgent Authority antagonists after they flatten your home town. As our hands-on begins we're helping Loosum Hagar, mayor of Wellspring, put down a political rival, an objective that also introduces us to some genre-standard deathrace and arena side activities.

Hagar's friendship is necessary for more than narrative reasons: she presides over one of three 'project' upgrade trees, unlocked by doing odd jobs such as flipping bandit outposts, recovering artefacts and murdering VIPs. These errands send you ricocheting around a realm that is both much grander and more visually varied than that of its predecessor. Due east, you'll find rock formations canted over like artillery pieces and windfarms stripped to their stalks. To the south-east you'll discover high rises melting slowly into the swamps. Viewed from on high it inspires wonder but also a certain boredom, as the prospect of busywork sinks in, and there's also the car handling to consider when racing to each waypoint, which is every bit as finicky as in Avalanche's *Just Cause* series. Fortunately, the game is more convincing up close and on foot, as you mix-and-match guns and suit powers in layouts that feel rather like *Doom* arenas scattered across the terrain by a passing meteor.

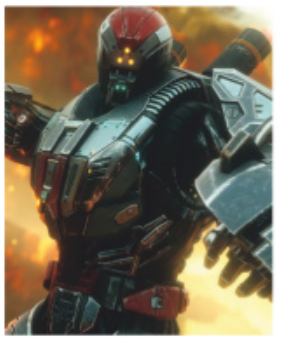
As with 2016's *Doom* reboot, the gunplay is fundamentally about three things: agility, ingenuity and splatter. You'll seldom take cover, though there's a barrier ability to unlock – better to reposition using that nippy dash and double-jump, then knock out your attackers with an exotic combo. The combat sandbox lacks a standout trick or tool, but it does teach you to think of enemies as comic props rather than mere victims of your violence. Vortex grenades haul attackers together for an easy multikill, but can also be used as boost pads, setting you up for a ground-pound. Grav darts allow you to yank foes into terrain hazards or launch them into the sunset, much like *Just Cause*'s grapple though with far fewer applications.

It's in the gunplay, of course, that Avalanche has learned most from original developer Id Software, which returns here as mentor and collaborator. "There are a few things, from sound design to FOV, hand position to speed of movement and reward systems – those are all kind of Id initiatives," the latter's studio director **Tim Willits** tells us. The bulk of the game is Avalanche's work, however, and Id has learned plenty from

The gunplay is fundamentally about three things: agility, ingenuity and splatter

working with Avalanche in turn. "Approaching mission design from any direction, and how you motivate players across an open world – those are the kinds of things they're good at," Willits says. Id has also relished working with Avalanche's Apex engine, after spending many years building tech for the first *Rage* that didn't quite suit its premise. "We had some really great aspects to the game, but because you had to build levels and switch discs, it all felt disconnected. Now it's open and seamless."

Rage 2's worst quality may be its supporting fiction, a zippy but charmless rehash of *Mad Max 2* featuring characters who are all one and the same half-cooked grotesque. You can expect screechy gangbangers, obese tycoons and randy bandit queens in feather boas. They're diverting enough in short bursts, given a tolerance for similes, but they're symptomatic of a game that's nowhere near as crazy as it pretends. *Rage 2* is an entertaining concoction, but it doesn't feel like more than its sum. ■



Ark attack

The most enticing and dangerous elements of *Rage 2*'s world are the remnants of the one before it – vaults packed with, and defended by, space-age technology. During our hands-on we tangle with an Ark Sentry, a giant robot turret with an overshield and attacks redolent of a boss in a bullet-hell shooter: energy waves that must be leapt over and bombardments telegraphed by lines of red light. It's a nice break from flipping bases, and we hope there are many more like it. Walker's trusty car, the Phoenix, comes in handy during such encounters because it can't actually be destroyed, resetting to 'foolproof' armour after it takes too much damage. You'll have to fix it before you can keep driving, however.



"We discuss a lot of the storylines," Leonard Boyarsky says. "And then I'll run with that on the writing side and our art team while Tim [Cain] handles the RPG and the gameplay systems"



HYPE

THE OUTER WORLDS

The makers of Fallout return with a thrillingly reactive RPG

Developer	Obsidian
Publisher	Private Division
Format	PC, PS4, Xbox One
Origin	US
Release	2019









TOP **"Technically robots don't count as killing anything because they're not sentient," Boyarsky says.** ABOVE **Halcyon is run by a corporation named Universal Defense Logistics, of which Spacer's Choice, one of the more common brands you'll encounter, is a subsidiary.** LEFT **Potential recruits will have their own backstories and quest lines, with abilities that can complement yours.** BOTTOM **Flaws make a huge difference to encounters. Cain: "If you accept a susceptibility to fire, from that point on you need to be *really* careful around enemies with flamethrowers"**

They say the secret to good comedy is timing. Which might explain why we enjoyed a guilty chuckle at *The Outer Worlds*' grand unveiling. At a point when Bethesda couldn't escape negative headlines for *Fallout 76* – for issues ranging from its not-so-micro-transactions to the quality of its limited-edition bumf – here were the co-creators of the original *Fallout* re-teaming to create a singleplayer-focused RPG. The response, inevitably, was wildly enthusiastic. "Let's be clear," Obsidian's **Tim Cain** says, straight-faced. "We had planned all this stuff months ago – years ago. That timing was not part of our plan."

The game may be set in a futuristic space colony rather than on post-nuclear-war Earth, but Cain and co-director **Leonard Boyarsky** accept the *Fallout* comparisons are inevitable, and they're not about to distance themselves from them. "Even if we weren't who we are I think people would still see similarities simply because of the basic things that you do in this style of game," Boyarsky says. "It isn't heavily based around cinematic cutscenes for your character or a voiced protagonist. It's a hardcore RPG where you talk to people face to face."

A high persuasion stat wasn't required when Cain asked Boyarsky to join him at Obsidian in 2016. When Cain was asked to lead the studio's new project, he knew he needed his old partner alongside him. "Tim's always calling me up and asking me to bail him out," Boyarsky quips.

"Yeah, I was floundering," Cain says.

"It was the right time," Boyarsky continues. "I'd been at Blizzard for ten years, which was a great experience but I was ready to do another singleplayer RPG."

Cain laughs: "I convinced him that Blizzard was a dead end and wasn't going anywhere."

It's clear the two are great friends, and so it's no surprise to learn that the story outline fell into place quickly. "Tim came up with the idea of riffing off the mining towns of the late 19th and early 20th century, where corporations basically owned people from the day they were born to the time they died," Boyarsky says. "That led us to thinking about robber barons in space and the frontier, and all that. Combine those ideas with my love of chunky low-tech machinery, and out comes *The Outer Worlds*."

Though these corporations engage in backstabbing and infighting, they all have a seat around the same table, and their goal is broadly the same: to exploit the colony for their own financial gain. Collectively, in other words, they're a single faction – one of three, Boyarsky reveals. But if there's no such thing as brand loyalty from the player's standpoint, you may well find a favourite depending on your playstyle. Since weapons degrade over time, you might want to switch to a superior brand that's less likely to break down; if you have strong engineering skills, however, you can break down common, cheap weapons into parts to keep your existing kit in good nick.

Which isn't to say guns are a necessity. "We had the goal that you could get through the game with no combat," Cain says. "But it's very, very hard." You'll need a character with the ability to talk their way past human aggressors and a high stealth stat to sneak past robots and creatures, he says, "though we might have to take out a robot or two."

> ***"One of our basic pillars was 'fun always takes precedence over realism'"***

From a mechanic that allows you to lean into susceptibilities (see 'Flaw plan') to companion characters you can call upon to compensate for your own shortcomings, it's the game's reactive systems that really tell its story. But all of it, Cain says, has to serve a purpose: he refers to the "kitchen-sink" approach the pair took with 2001 fantasy RPG *Arcanum*, and says they've become much better at editing out anything that doesn't serve the game. Hence the absence of NPC romances and lock-picking minigames, but the presence of outlandish weapons that don't obey any real-world rules. "One of our basic pillars was 'fun always takes precedence over realism', so none of the science weapons are realistic in any way," Cain says with a grin. "And we don't care." ■



Flaw plan

"It's something I've actually been thinking about for more than a decade," Cain says of the way *The Outer Worlds* studies and reacts to your weaknesses. Take a lot of fall damage, for example, and you'll be asked if you'd like your character to have a fear of heights. "And then whenever you get near an edge it will penalise your character by reducing some attributes because you're so frightened." And whyever would you want to do that? "Because you can gain a perk right away." These aren't bound to specific Flaws as they once were; you get your pick of the whole perk tree. It's not just fears, either – you can develop susceptibilities and even addictions. "We're also trying to get Compulsion in there, but I'm not sure it'll make it," he says.

Developer Panache Digital
Publisher Private Division
Format PC, PS4, Xbox One
Origin Canada
Release 2019

ANCESTORS: THE HUMANKIND ODYSSEY

Why Patrice Désilets' epic journey is no ordinary survival game

For a man known for historical adventures, Patrice Désilets has spent a while trying to escape his past. *Ancestors: The Humankind Odyssey* is his first game since 2010's *Assassin's Creed: Brotherhood*, after which he left Ubisoft to pursue new creative horizons. That didn't quite pan out. After two years working on *1666 Amsterdam* for THQ Montreal, Désilets' new publisher went bust, and the studio was sold – to Ubisoft. Time for another fresh start. "What I needed was a game that could serve as a toolbox for many other IPs," he tells us. He built a simple, flexible template for a thirdperson action game with no setting, purely to show off "cool gameplay mechanics".

> ***"Character progression in a game is basically the same thing as human evolution"***

When he started to pitch it, he got a predictable response. "People said, 'Yeah, but where's *Assassin's Creed*? Where is your historical game? That's your signature, and we'd give you money if you had one,'" he says. 'You want historical,' Désilets thought, 'I'll give you historical.' "I had a flash about prehistoric times: I don't have to build a civilisation, I don't have to build a city. I can just focus on this main character in a 3D environment. And so that was the beginning of it all."

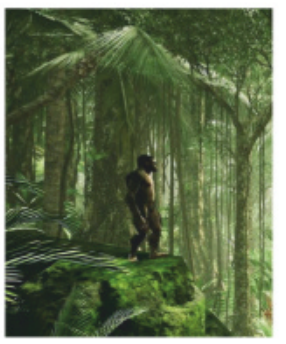
No kidding. *Ancestors* starts 10 million years ago, and by its end 8 million years will have elapsed – fortunately not in realtime (this really isn't another *Assassin's Creed*). In between you control a tribe of early men and women as they chart a huge open world, taking in jungles, forests and savannahs, as they steadily expand their territory and their clan, before eventually evolving. "Character progression in an action-adventure game is basically the same thing as human evolution," Désilets says. 'Basically' is doing a lot of work there, but we see his point: *Ancestors* will adopt a more organic approach to levelling up.

This, you see, is no ordinary survival game. "It's not about going in to your inventory and combining two elements to create a third one," he says, and we want to cheer. And then suddenly we're confused: "Don't forget that not only is this open-world survival, but you play as Mario." Happily, he elaborates. "How the main character moves and how he behaves, that second-to-second gameplay is *really* important. That itself is very different to any other survival game."

In the game's main survival mode, you won't know where your adventure begins. Désilets likens it to starting a new map on *Civilization*. "Depending on where you start your life – I won't say it'll be easier or harder, but it will change the pacing of it. Since there's no map it'll take a while for you to [divine] 'Okay, where am I exactly?' There's a lot of randomisation. You may start alone and injured in the middle of a chase sequence."

With no minimap, you'll need to use your senses to navigate. But since you set your own goals, you can't blame the game if you lose your way. "We did a playtest a couple of weeks ago and somebody said – and I feel like he got it – 'I got lost, but I felt it was my fault'. And that's..." he stops talking, but shakes his fist triumphantly.

That's the essence of *Ancestors*, essentially: it's a game where you need to keep your wits about you, because the game won't do it for you. But if predators and other natural hazards make it a perilous journey, dying simply means control will pass to another member of your clan, giving you more leeway to fail than you ordinarily get in the genre. It's about sensation, not challenge. "It's the perfect game to play on a rainy Friday night because then you're suddenly in Africa 10 million years ago," he says. In other words, Désilets has emerged from his own personal wilderness to give us an escape into another. It's good to have him back. ■



King of the jungle

Survival games can involve a lot of effort for fleeting moments of reward. But while *Ancestors* has a clear final goal, Désilets is keen to ensure getting there is enjoyable. "You can spend hours not going through your evolutions at all and you won't be bored because the traversal is really fun." *Ancestors*' controls are simple, but there's some skill involved in getting around efficiently, whether you're climbing, leaping or swinging high among the treetops. "With Altair and Ezio, you have characters that help the player a lot – you can be average and still be a badass," he says. "This time if you're average you probably won't survive. I don't want to use the cliché 'easy to learn, difficult to master', but you can get really good at it."



LEFT **Development has involved a lot of iteration and playtesting, Désilets tells us. Currently his team is producing between ten and 20 new builds a day.**
BELOW **Around 30 people are working on *Ancestors* at Panache Digital. "I didn't want to go back to a huge team," Désilets says. "And I believe you can do a lot with fewer people. You remove a lot of middle management, and everyone chips in"**





ABOVE **Your starting point makes a marginal difference, but *Ancestors* has only one difficulty setting. The first time you play it you'll be eased into things, Désilets says; after that comes the real survival mode.**
RIGHT **The game runs in realtime only when you're not moving. "As soon as you start to move, that makes the time go way faster," Désilets says, explaining how you play through 8 million years. "I wanted to play with the notion of time, the relativity of it all. Like when you wait for the bus it takes longer than when you're playing a sport"**



Developer/publisher
Grapeshot Games
Format PC, Xbox One
Origin US
Release Out now





ATLAS

The early-access pirate MMO pits reality against expectation

Our first foray into the high seas of pirate-themed MMO *Atlas* is a remarkably literal one – we spawn at the bottom of the ocean, rather than in one of the intended, very-much-land-based freeport starting points. Our second sees us spawning in a freeport, only to encounter an elephant suspended over a street like an archway, its backside and head clipping through buildings on either side and its feet making walking motions a metre off the ground.

Atlas is in Early Access, so bugs are to be expected, but they're also worth warning you about. That's partly because the game is also being sold for just under £25 – a not-insignificant dent in one's wallet – and partly because it would be easy to fall in love with Studio Wildcard's ambitions for the game.

Studio Wildcard – or rather, Grapeshot Games, the studio set up within Wildcard to work on *Atlas* – is the developer of *Ark: Survival Evolved*. While *Ark* offers players 100-player survival game islands with tameable dinosaurs, crafting and clans, *Atlas* is intended to support tens of thousands of players in a single world that's 1,200 times the size of the *Ark* space. The developer wants it to be the crucible for stories of player empires, betrayals and weird adventures on a par with the tales which spill out of CCP's famously opaque space game, *Eve Online*.

In some ways those intentions seem solid. In a pre-release session we try naval combat on a massive tricked-out ship which would have taken thousands of combined player hours to create. We fire cannons, we take charge of the sails, we direct AI and human crew, we seek and fight for buried treasure, we anger a whale, we watch the developers take down a hydra, and we punch a manta ray on the nose. These moments are often thrilling, but they need to sit within the correct framework to form a meaningful experience. That's where *Atlas* is struggling.

It would be easy to fall in love with Studio Wildcard's ambitions for the game

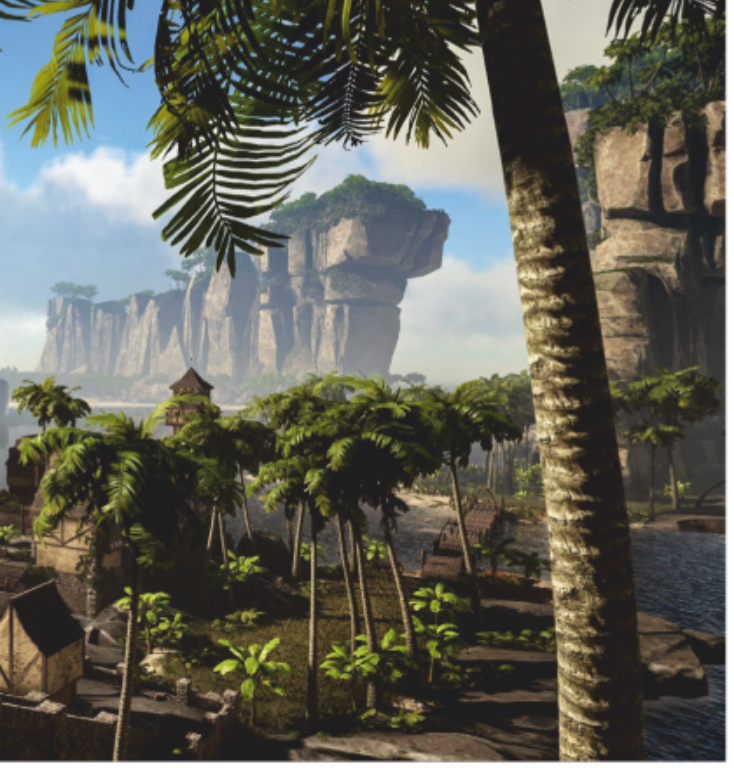


Sadly, an on-board HR department isn't one of *Atlas*' features – beware escalating disputes with your colleagues at sea



Ark's journey through Early Access was peppered with missteps, and ongoing gripes about performance. Wildcard says it has learned a lot from the experience, but so far *Atlas*'s Early Access journey has involved four launch delays (it was initially supposed to go live with the game's announcement at The Game Awards on 7 December), issues with lag and server instability, and accusations that it's a pirate-themed reskin of *Ark*. That's in addition to the bugs and criticisms of systems and UI which are common in Early Access.

Arriving on the PvP server as a new character, we gain early resources by punching







TOP LEFT ***Atlas*' world is 45,000 square kilometres made up of roughly 700 unique landmasses.**
TOP RIGHT **The melee combat system is comprehensive, with a full skill tree of dodges, blocks, parries and blows of varying strengths.**
MAIN **Each Hydra head has a different attack: Poison, Fire, Frost, Electric, and possibly some kind of Hard Stare**

trees and groping around at the floor. On the left, a text box shows messages from nearby players in various languages, a combination of functional talk, misspelled curses and some chat which threatens to tip into playground homophobia. Bugs with the awkward UI and tutorial text not appearing make this early section slow going and full of guesswork.

It's hard to connect the tedium of this early tree-punching, and the rickety feel of the game in general, to the galleon battles and dragon-riding from our preview play. Wildcard wants *Atlas* to be this all-singing, all-dancing experience; a vast world into which you can sink thousands of hours, take part in an epic struggle between empires and do things like play the accordion, or raise children to turn them into your next player character. And that's to say nothing of what Wildcard hopes players will do on unofficial servers.

Right now, the language of "what could be" is constantly in conflict with "what is". *Ark* survived that conflict, becoming massively popular despite criticisms. *Atlas* might do the same. But it's a disparity worth noting if you're considering setting sail with the Early Access version. That seamless 40,000-player world seems a very long way off. ■



One direction

If you're looking for a broader purpose for your character than general piracy, you can focus on the compass each character starts with in their inventory. As well as being used for basic navigation the compass features nine power stone slots. You can collect these power stones by completing various quests. Mostly they involve journeying to a particular PvE island and killing a boss monster. In the Hydra battle, each of the monster's five heads has a different elemental attack and will regrow if you take too long to destroy the rest of the beast. Filling every space in your compass means you'll be able to summon a sea demon, which Wildcard's Jeremy Stieglitz describes as "way cooler than a kraken", for a final sea battle.

SEKIRO: SHADOWS DIE TWICE

Developer FromSoftware **Publisher** Activision **Format** PC, PS4, Xbox One **Origin** Japan **Release** March 22



What looked like a worthy experiment for Activision has taken on greater importance following the recent split from *Destiny* developer Bungie. The loss of one of the Californian publisher's financial pillars increases the pressure on those that remain. As new details drip out, it becomes increasingly clear that *Sekiro* is more than just a Soulslike with a big budget: there will be no more corpse runs, for instance, since you lose nothing material when you die, while progression is bound to skill trees, rather than character stats. That's probably just as well: Activision now needs more from this endeavour than another FromSoft cult hit.

YOSHI'S CRAFTED WORLD

Developer Good-Feel **Publisher** Nintendo **Format** Switch **Origin** Japan **Release** March 29



Good-Feel's plane-shifting papercraft platformer will be with us on Brexit day, when we suspect we'll need some technicolour whimsy. The story tells of the Sundream Stone, a mystical artefact on the Yoshi's island's highest peak that's capable of making your dreams come true – until evil forces nick it. A bit on the nose, but we'll try to avoid making the obvious connections as we close the curtains and pretend a country isn't flushing itself down the toilet outside.

EASTSHADE

Developer/publisher Eastshade Studios
Format PC **Origin** US **Release** February 13



This adventure has been five years in the making, and offers a painterly riff on screenshot culture. You're a wandering artist exploring the island of Eastshade; happen upon something that inspires you and you can capture it on your easel, trading the results with locals for quests, secrets and story progression.

TROPICO 6

Developer Limbic Entertainment **Publisher** Kalypso Media
Format PC, PS4, Xbox One **Origin** Germany **Release** March 29



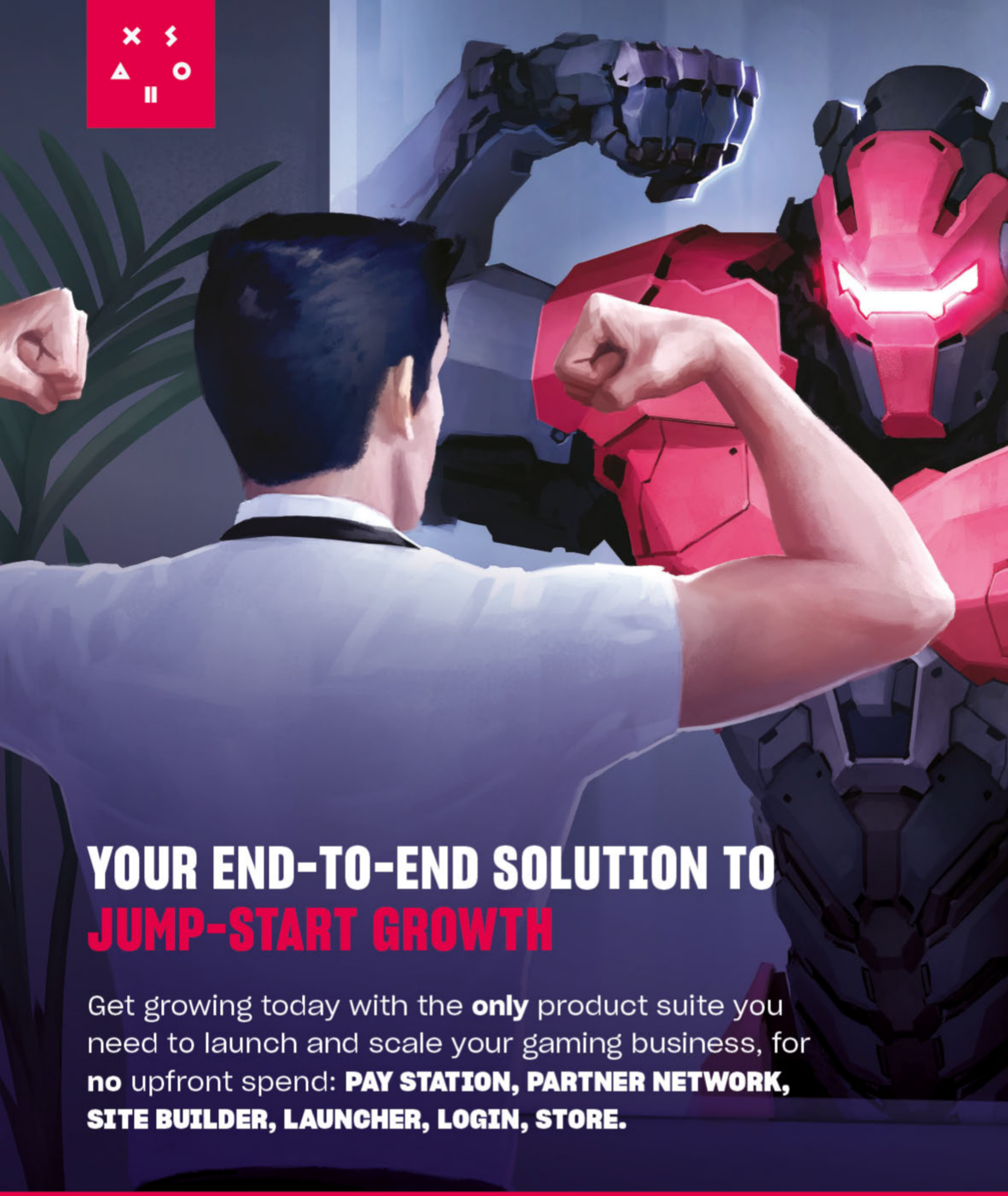
We'd planned to review Limbic's latest statesmanship sim this month, until news arrived of another delay. Benevolent players will find plenty of cathartic escapism when this finally lands on Brexit day; the despots among you need only look outside. (Sorry, we're a bit preoccupied at the moment.)

TEAM SONIC RACING

Developer Sumo Digital **Publisher** Sega
Format PC, PS4, Switch, Xbox One **Origin** UK **Release** May 21



Sad though we are to not be getting another *Sonic & Sega All-Stars*, there's nonetheless plenty to like about Sumo's novel team-based kart racer. One is the soundtrack, put together by *Sonic Generations* composer Jun Senoue, in partnership with another Sega legend, Richard Jacques.



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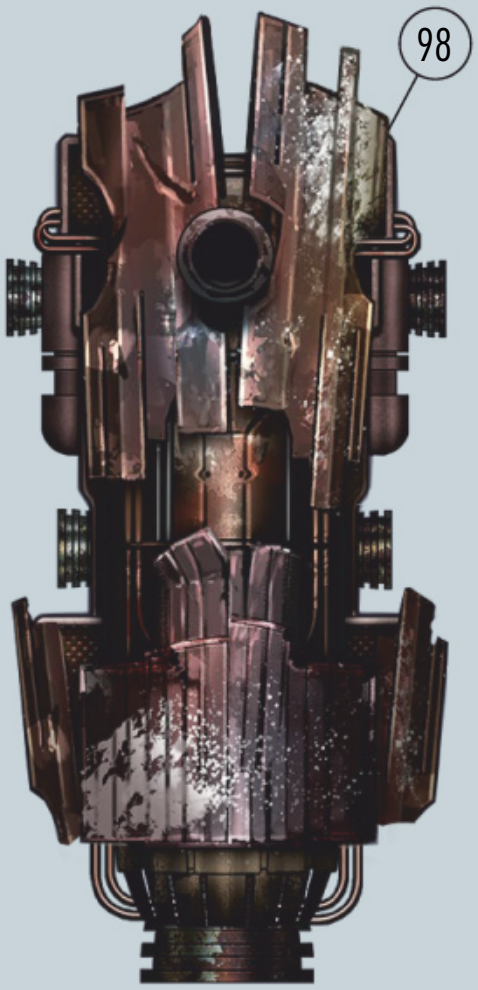
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LEAP OF FAITH



After a tough few years, BioWare hopes to rise again with a soaring sci-fi shooter

By Jen Simpkins

LEAP OF FAITH



Executive producer Mark Darrah

Every bone in our body is telling us not to jump. As we peer over the edge of the platform into the waiting crevasse below, it's astonishing how strongly our survival instinct kicks in. We're aware that it's only a videogame, but whichever way you slice it, leaping off a cliff while wearing a hulking great mech suit feels like a terrible idea.

It's the details that contribute to the fear. To launch an *Anthem* session, we must first climb into our comfortably padded Javelin in firstperson view. A camera swoops around the exterior, allowing us to admire our rig: our new helmet and breastplate, every scuff mark on our custom paint job. The suit feels real, tangible – strangely intimate, like a classic car we've spent hours fixing up. And then, suddenly, we're asked to drive it over a cliff.

This isn't even the first time we've done so – we've already played a good few hours of *Anthem* – but the terror persists as we clunk forward and jump. We hang in the air, gravity momentarily distracted, and our stomach lurches – before we remember to hit our rockets, and take flight. "Something that someone said last week that I actually think is really accurate is, 'Every time I start flying, I panic a little bit and I have to remember how to do it'," executive producer **Mark Darrah** says. "At the time I was like, 'Oh no, that's a problem' – but I actually think it's not. It's actually the power of the game. Every time you're jumping off a building, and every time the game catches you. But every time you need to jump off that building again. It's looking for that leap of faith every time you fly."

"EVERY TIME I START FLYING, I PANIC A LITTLE BIT AND I HAVE TO REMEMBER HOW TO DO IT"

The parallel is irresistible. For BioWare, *Anthem* is that same leap, and it crackles with the same energy. It's a venture into, if not the unknown, at least the uncertain. Here is a studio that has made its name on singleplayer, story-focused roleplaying games with a beginning, a middle and an end. *Anthem* is an always-online multiplayer looter-shooter set in an ever-changing world that is designed to be played for years. It's a new IP spanning several genres with which BioWare is not entirely familiar, and in which fans of *Dragon Age* and *Mass Effect* may not even be interested. It is also a game whose aims and means place it in direct competition with the likes of *Destiny*. ▶





Game *Anthem*
Developer BioWare
Publisher EA
Format PC, PS4, Xbox One
Release February 22

Irving: "At the end of a loot chase there'll always be something for the one per cent of people who invest their time and love that. The perfect legendary build, the Holy Grail. But it's just not going to be the same motivation given for an explorer, or someone else"





And, to cap it all, it's a crucial game for the studio. BioWare's previous game, 2017's *Mass Effect Andromeda*, went over miserably, and contributed to the closure of the Montreal studio later that year. EA, too, has made unwanted headlines: thanks to *Star Wars Battlefront II*'s grubby monetisation, trust in the publisher has nosedived, and 'loot' has become a dirty word. This might not, on the face of it, be a great time for an EA studio to make a loot game. But if our visit to the Edmonton studio reveals anything, it's that BioWare knows all too well that if you're not prepared to jump, you're never going to fly.

Being pushed doesn't work, either. Tempting as it is to imagine a pantomime exec in a meeting room, puffing on a cigar and demanding someone bring him EA's *Destiny*, the truth is that *Anthem* was a natural development for BioWare. As the studio wrapped up work on *Mass Effect 3* and the Citadel DLC in 2012, the team began to talk about taking on a new challenge in the form of new IP. For general manager **Casey Hudson**, the foray into new territory proved nostalgic. "It reminded me of when we finished working on *Star Wars: Knights Of The Old Republic*," he says. "Our feeling was, 'Wow, we had so much fun – we want to do that again, but there's a whole set of new things that we want to do now.' That gave rise to *Mass Effect*. And what *Anthem* started out as was, 'Let's create a whole new universe, and be a lot more open-world in our design."

The other challenge that he wanted the team at BioWare to take on was multiplayer. "Why can't you have a game where there is a really interesting authored story, characters, relationships and an open world to explore – and be able to adventure around in it with a friend?" Hudson says. "We've always wanted to figure out how to crack that one." It wasn't a completely unknown quantity: back in 1998, *Baldur's Gate* sought to recreate the experience of playing Dungeons & Dragons with friends on a computer. "It's always been there, in what we are trying to do at BioWare. Even when we don't have actual multiplayer, it's still always very much a shared experience. Everything that we do is about not just you adventuring on your own as a character – part of what's unique to a BioWare game is that you can look over at your friends, whether they are multiplayer friends or written characters, and they are part of the dynamic of the experience."

Game director **Jonathan Warner** was there at *Anthem*'s inception, helping shape the concept from the start. "We knew we wanted a few specific things," he tells us. "We wanted it to be an open world of some sort, and wanted it to be more social." This was early 2012, before the likes of *Destiny* or *The Division* were even announced. "We just felt that this was where the industry was going, and we thought it would be interesting to pursue."

With this very loose concept in mind, a small group began to kick about ideas. There were about 30 pitches in total. Quickly, the team was taken with the concept of a high-mobility traversal mechanic, and after much iteration and remixing of elements and ideas came to the concept of "a group of heroes who had these cool powered exosuits in an alien world".

In the first prototype, *Anthem*'s exosuits were a means to a very different end: climbing. "You could get to all these interesting high spaces," Warner says, "and once you got up there, it was like, 'Now that you're up here, why don't we do something cool?' rather than just jumping or climbing back down."

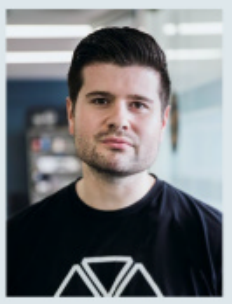
The dev team began to play about with the parameters of flight. "It took a lot of iteration," lead producer **Ben Irving** says. "A year-and-a-half ago, flight was gliding. That felt cool, but not *really*, so we made it flight. Then it was like, 'This is awesome – but the world doesn't work and creatures don't work', so we took it out. And then

"WE WANTED IT TO BE AN OPEN WORLD OF SOME SORT, AND WANTED IT TO BE MORE SOCIAL"

the game was boring." He and the others were worried that people were so busy flying about that they were neglecting the other mechanics – why scramble up a cliff face when you have a perfectly usable jetpack? – and so flight was turned off while the team worked on the minutiae of jump height and so on. "Then we were like, 'Oh, when it's off it just all feels wrong, so let's turn it back on', and the commitment was that this was a core part of how you move in the world. Then we just agreed to solve all the other problems."

The challenges created were myriad: how levels should be designed, how to structure missions and direct the player towards points of interest, what kinds of attacks creatures would need to have to pose a threat to airborne players. "We get asked a lot whether flight came first or whether the world came first," lead producer **Mike Gamble** says. "Flight did come first, because we then had to create a world to be flown around in."

The team deliberated throughout 2012 over what shape that world might take – and how to solve one more problem they'd had with past games. "We always noticed that as much as people would love our games, they would not ▶



Lead producer Mike Gamble

FOOD FOR FORT

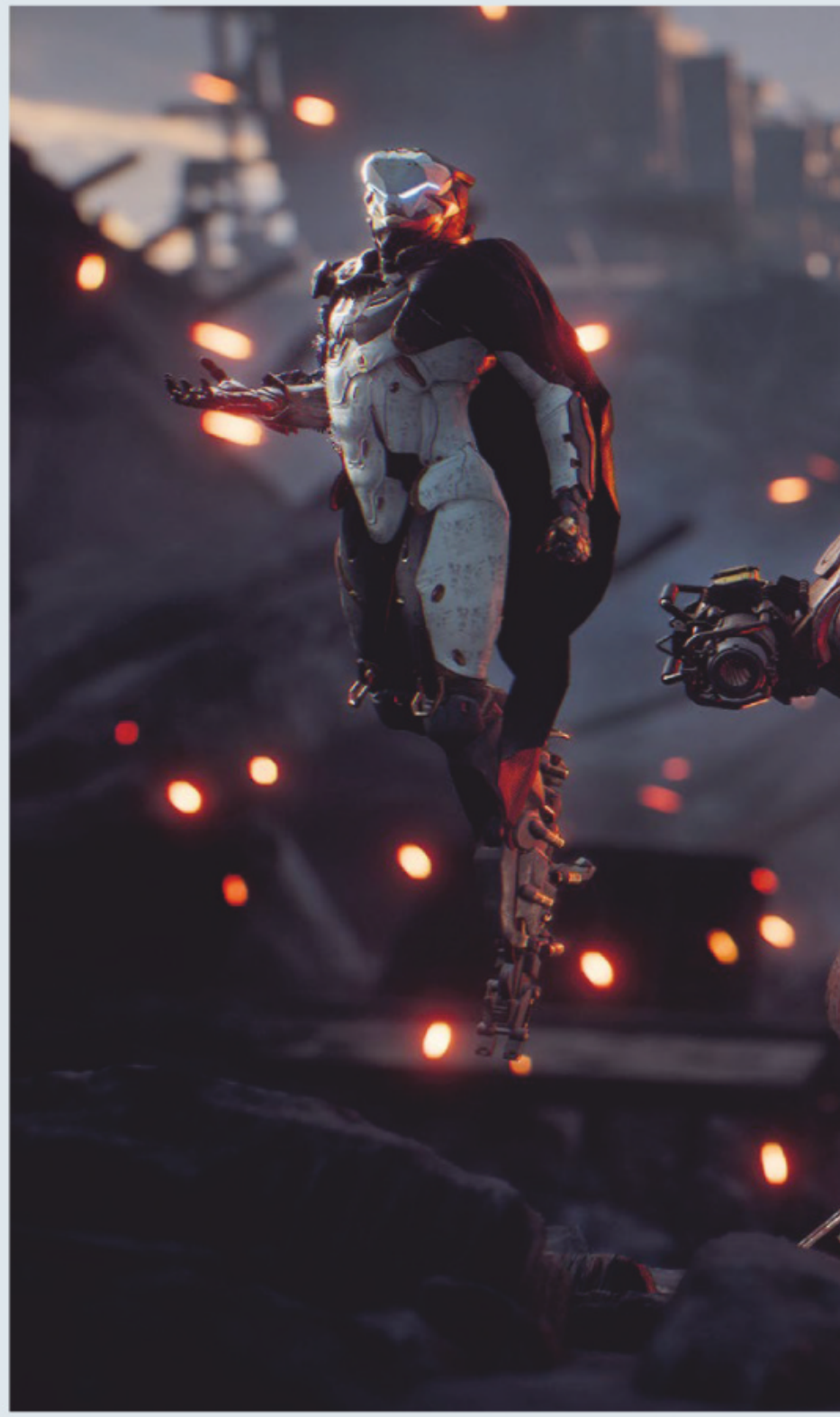
Bustling Fort Tarsis is your main hub: you'll launch all your sessions from this singleplayer area. It's also where you'll find the Forge, which lets you upgrade your Javelin with the loot you've snagged. Talking to members of the various Factions will allow you to access missions and build your reputation with them. There are no specific meters for relationships with individual characters, but over time you'll see more conversation options with NPCs you've completed missions for. "Fort Tarsis is a private place where you get to linger over the story as much or as little as you want," Warner says. "We're giving you the choice to engage in these things at the depth that you want, and also telling a larger co-operative story that happens that we all share out in the open world."



BioWare general manager Casey Hudson

want to talk about them," Hudson says. Players were reluctant to spoil the story. "It limited the ability for people to share their enjoyment of our games with each other, especially in a world where you learn about games through conversation and viral discussion." He watched series like Game Of Thrones gather momentum, with viewers discussing last night's events over the water cooler each week, and saw an opportunity. "There's an excitement that wasn't in any game at the time along the lines of, 'What's exciting about what's happening right now?' And you don't know what's going to happen, but you feel like you're in the middle of a ride and it's going somewhere. We wanted to build that in."

Then, later that year, Hurricane Sandy arrived. Hudson watched America react in realtime to the incoming 'storm of the century'. "As it got closer, they ratcheted up the warnings about how bad it was going to be, and said they knew it was going to be at its worst point at 9am on Friday morning," Hudson says. "I was like, 'I'll go into work and have that open in my second monitor and just see what happens'. One of the news items was about a crane that broke off and was dangling over the street – they were worried about whether it was going to fall." Hudson found himself taking in endless amounts of text, diagrams, footage, and explanations from scientists as chaos unfolded. ▶



"I WANTED TO BE ABLE TO DO THAT – GET PEOPLE EXCITED ABOUT SOMETHING"





Each Javelin feels different to pilot; the Colossus is weighty, dealing damage when landing, while the Storm glides around elegantly. In actuality, all fly at the same speed – it's animation and sound working magic. "You don't want to be too far ahead of each other," Gamble says. "Between the pacing, the flight speed, mission structure and the safety net of teleporting, it's how we keep you together"

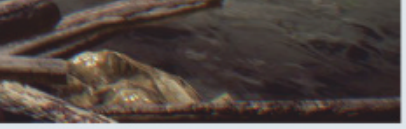
There were "thousands" of iterations on the control scheme for flight, Darrah says, pointing to *Crimson Skies* as a game that "was really fun to fly in" and helped them nail the feel of *Anthem*. Irving adds: "In our game, it's not a mode; it's the same thing. Forward needs to be forward if I run, swim, or fly. So all the complexities are compounded"











"I was thinking, 'That's what's missing in games: the ability to tell the story like that'. I wanted to be able to do that – get people excited about something, or start looking forward to worrying about what's going to happen, control things and tell a story in realtime."

Suddenly, it was clear what *Anthem*'s world should be: a place in constant flux, left half-formed by strange deities who had used technological tools to control a force known as the Anthem Of Creation. The gods would be AWOL, but the unstable technology would remain buried in the world – and when certain pieces malfunctioned, players would have to adapt to the dramatic changes in the environment. BioWare would have to adapt, too: this would be an entirely different approach to storytelling and world-building, requiring adjustable parameters to be built into the game from the beginning and be accessible to its developers at any time. It would be a huge undertaking. "A little bit of foolishness is important," Hudson says. "When we look back at what we did in the early days, so much of where we were able to do good work came from the fact we didn't know how to do certain things, but we would just throw ourselves into them. What can happen over time is that you become risk averse because you know the things you could fail on, and the consequences. But you want to be a little bit uncomfortable with the level of innovation that you are taking on."

It speaks volumes that Hudson came back to risk it all again for *Anthem*, following his 2014 departure from the studio to work at Microsoft on HoloLens. "After *KOTOR* and three *Mass Effects*, the beginning of *Anthem* represented the beginning of maybe the next ten years of what I was going to be doing," he says. "It was exciting – I loved the game and I loved the people I was working with – but I also felt like I was getting to the end of what I felt like I needed to do at that level. I looked at other things that I could graduate to, like running the studio. I thought, 'I don't know if I want to do that, either'."

Hudson felt he needed a change, and the fan outcry following *Mass Effect 3*'s ending had been difficult. "Sometimes what gets lost is that for me and everyone who works on a game, the whole reason that you do it is because you want to delight people, in the end," he says. "So any time that you are not able to make people happy, it's hard. It's hard for everybody. With each game, you learn what you want to do better, and that's built in to the creative process. You've got to just try things. You know that some of them are not going to work and even though it really hurts sometimes, you just have to keep going back in, looking at how things are received and building that into what you do next."

He pauses. "Everything that we make is full of things that we wish we could have done better. As you roll into the new thing, it's always just a huge collection of things that you want to take on next time, innovations you want to add, mistakes that you don't want to make. It's always, 'How do we respond to the thing that players want us to do differently?' but also, 'What is a set of things we want to do better ourselves?'"

One of those was clearly the simple pleasure of movement: *Anthem* is the studio's most fluid-feeling game yet. The twin elements of the game's flight system and its world are masterfully balanced, and work in delightful synchronicity, leaping around each other playfully like rocket-propelled dolphins as we soar through the vertiginous splendour of *Anthem*'s world. First, as always, the leap of faith – then a jet-fuelled dive straight down, skimming the line of a cascading waterfall like a shiny metal kingfisher. Then a

"YOU LEARN WHAT YOU WANT TO DO BETTER, AND THAT'S BUILT INTO THE CREATIVE PROCESS"

seamless plunge into the water, which shimmers with bioluminescent barnacles. The riverbed is strewn with sunken mechanical wreckage; a dark tunnel spiralling down on our left suggests a mysterious underwater cavern filled with loot. The transition from air to water, back out into the air and onto solid ground is impeccably smooth.

The potential for honing your skill with your chosen exosuit's flight system is dizzying. The jetpack has a limited amount of time before its engine overheats – but we can delay it, picking out optimal paths through the scenery that bring us skimming over bodies of water to halt overheating, or hugging waterfalls and taking steep dives to cool the suit and extend flight time. "You're making little decisions constantly," Darrah says. "You're stimulated mentally, you're using the gamepad pretty constantly as well, so you get this really cool interaction between what you are observing on the screen, the decisions you are making, the way you are using the controller. It all comes together."

As Irving points out, it's why things like the heat gauge matter: given infinite stamina, chances are you'd fly in a straight line to your next destination and barely engage with the landscape around you. "So it rewards advanced play. Everyone likes to feel like they're good, so if you master flight and you can actually skim the water, the ▶



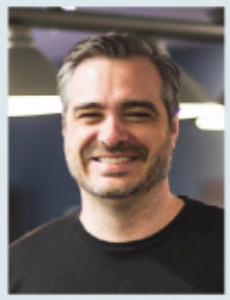
Darrah: "Walk around the base of Fort Tarsis, and there are a bazillion adventures you'll find; lots of trouble, and interesting things"



byproduct of that is you need to dodge all the obstacles. So now you are an advanced player doing all this at once so you can manage heat. And you feel like you're beating the game." Darrah laughs, and adds: "When your friends have to land and you have just a little more heat left, and you're able to go that little bit further – that feels so good!"

This spirit of friendly competition pushes us to experiment more, as we swoop through canyons alongside our teammates during one expedition. On the hunt for a missing arcanist, playing as an Interceptor is electrifying: with its multi-directional triple-dash accessible by holding down a button, devastating melee attacks and delightful habit of backflipping every time we take to the skies, the winged cyborg ninja suit is well-tailored to slicing through thick groups of insectoid Scars before dodging out of the fray to recover. The mission structure itself is less arresting – we locate a series of signal boosters until we find Matthias the arcanist, cowering in a room swarming with Scars and backed up by armoured Enforcer minibosses. It's more free-for-all than grand feat of teamwork.

The Stronghold we attempt, however, is a different story. It's brutally tricky, even on Normal



Lead producer Ben Irving

THE STRONGHOLDS WILL TRULY TEST TEAM COORDINATION AND SITUATIONAL AWARENESS

difficulty (there will be three difficulty levels for missions at launch, with higher tiers offering better loot; three additional Grand Master difficulty levels will be added post-launch). Free Play and Expeditions will serve as the setting for the usual loot-chase loop, build optimisation and experimentation. You'll grind to roll the perfect inscriptions (read: perks) on your guns and gear, and level up your Pilot. But it's the Strongholds that will truly test team coordination and situational awareness. We begin to push up the first part of a spiralling ascent through a dark cavern – we must locate glowing 'echoes' and transport them to a strange Shaper relic to shut it down and progress the mission – but are quickly jolted out of our hitherto rather relaxed approach to combat when our team wipes four times in quick succession.

A closer look at the three lanes reveals we need to band together more closely around at least one Colossus, which can tank most of the central damage with its shield. It's enormously gratifying to play the part on one (ultimately unsuccessful) run, shield-bashing the occasional Scar as we anchor the team and lead the charge. In a later section, however, we take on a different role in the mage- ▶

like Storm suit. Our particular team-support ability is a Wind Wall that can be used to block enemy fire from behind as our teammates fight onwards; meanwhile, we can hover for an extended amount of time with a generous overshield and a Deadeye sniper rifle, zipping around to different vantage points to provide cover fire. Our dual-ability custom loadout is more melee-focused to give our squishy suit some options when we do need to land, consisting of Frost Shards and Flame Burst for their close-quarters power and potential to set up elemental combos with the team.

And we *struggle*, us and a team of devs who've been playing this game for years now. We've been boosted a bit – our Pilot level is hovering at around level 20, and we've unlocked a second gun slot – but even with the extra HP and damage value our carefully selected suit components afford, the Stronghold requires ruthlessly efficient teamwork. Then again, this is an endgame activity. Progression, BioWare hopes, will begin with the critical path and initial gear chase through the story, Contracts and Expeditions; new Javelin classes will unlock at fixed points as you level up. Then come

"ULTIMATELY ALL GAMES ARE ABOUT DOING A THING IN ORDER TO DO ANOTHER THING"



Game director Jonathan Warner

Strongholds and Legendary Contracts: once you've gathered a reliable group of teammates, you can ratchet up the difficulty on all of these activities to aim for the best loot. "You're chasing these builds, pushing against this tough content as you hit walls," Irving says. "You're like, 'I need this other combination of gear to have these synergies with my group to do this harder content'. You get into a really interesting loop."

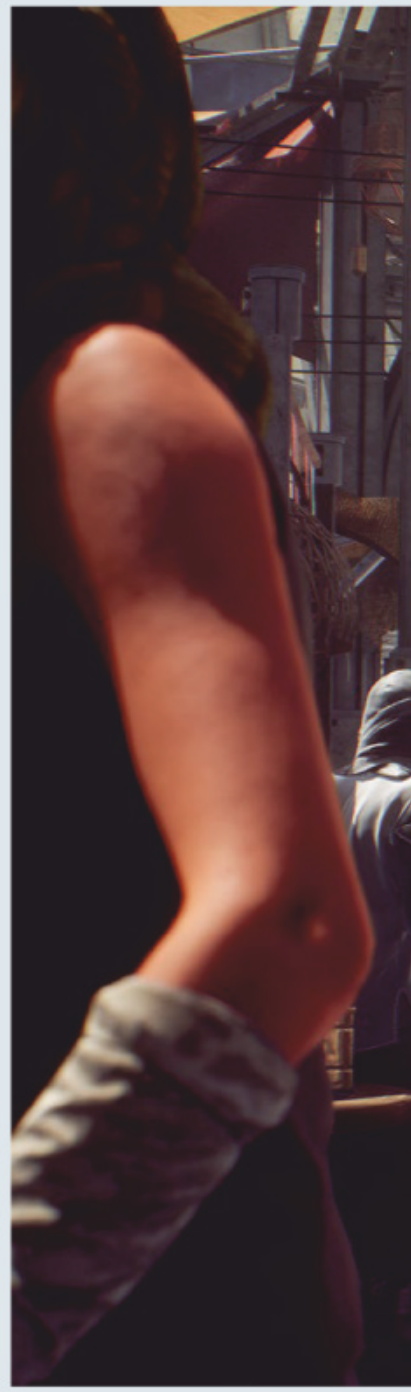
But *Anthem*'s loops will differ from those of, say, *Destiny*. Firstly, Contracts and Legendary Contracts have a number of 'links' in their structure, and each is randomly drawn from a pool of different events and strung together to make more varied missions. Secondly, the nature of its world means that the developers can change the meta on a whim and force players to adapt, whether it's to a particular storm blowing in or a massive shift in the landscape. "In a lot of games," Warner says, "you know that when you go around this bend, there's going to be this group of enemies and this is how you fight them. Our world is a little more dynamic and flexible: when I fly over an area, it may be the same enemies, but it may be raining, or nighttime, and there are a bunch of variables that you get to play with."

While the developers appreciate that the chase is a crucial part of what gives this kind of game its longevity, they also know that it should be continually meaningful. *Anthem*'s shifting world is one way to take the sting out of grinding the same missions for a chance at a different reward – as is a crafting system that allows you to focus all your resources more specifically on a certain gun or piece of gear. But making sure that the gear-game is compelling, and that loot feels meaningful, is another important step. "It starts from a base of tying it back to you playing the game well, whether that's skilfully or consistently," Warner says. "If you start from the point of view of, 'Let's create a system that's going to monetise' or accomplishing some other end, it takes you to strange places. A base intention of rewarding the player gets you headed in the right direction. Then it's all about understanding the journey, and creating a system that is going to feed that power fantasy of, in this case, Javelins getting more powerful. And also making you feel cleverer."

Good loot, he believes, should be a simple puzzle that becomes more intricate as you begin to understand the relationship between the pieces. "And some of it is letting gear and loot go in that's not necessarily great in a broken sort of way, so the player can feel clever about choosing not to use that piece of gear." Irving adds: "It's never quite as simple as the loot drops and it's more powerful. There's a difference in getting something that changes how you play the game."

But the 'how', according to BioWare, should take a backseat to the 'why'. "For me, *Destiny* never really had a good enough 'why'," Darrah says. "Ultimately, all games are about doing a thing in order to do another thing. But the question is whether or not you can contextualise that in a way where I'm like, 'Right, but I *want* to do that'. *Destiny* never really crossed that line for me. For me, it is about exploration, lore and being able to scratch the surface of this world, and figure out more." For others, it'll be about social competition: using their Javelin as a status symbol, creating a suit that tells a story, devastates a certain boss or helps them master flight and see more of *Anthem*'s maze-like world. And for others still – fans of BioWare's previous output, we should think – it'll be about the stories that buzz around the Fort Tarsis hub, and the growing relationships that form the basis of many missions.

This was what made *Mass Effect* special, and what has the potential to make *Anthem* more well-rounded than its genre peers. "For us, the 'why' has to be emotional," Irving says. "I think it's nicer if it's about a relationship or a character, but even ▶



SUIT UP

The customisation options for Javelins are staggeringly detailed. You can alter primary, secondary, tertiary and quarternary areas. You can tweak individual limbs and control how worn each piece looks, then save and name your look. "I grew up reading superhero comics and was fascinating with heroes getting new costumes," Warner says. "So when it translates to a Javelin, it's like: 'Okay, this is my hero'. I find that I never really settle on one look." Irving concurs: "When I'm playing my endgame Ranger, low frost grenade cooldown, I want to be in blue, and I save my loadout as 'Frosty Warrior'. It's a weird, childish thing but I love it." He brings up a study where people who built a table themselves estimated it at quadruple its value. "If you create yourself, or invest that time yourself, that you have an attachment to it and you perceive more value in it."



The shooting doesn't feel quite as impactful as it should, but BioWare sees *Anthem* as more of a rounded-out action-RPG than a shooter. "Casey used to use this metaphor, that a good IP is like coconut cream pie," Warner says. "For us, it is the moment-to-moment gameplay – but we've also done the thing that our teams are good at, creating an entire world with depth, texture and mysteries to unravel"

Hudson: "What the team has done with music and building audio into the IP itself is really unique. *Anthem* refers to the reshaping energy of the world. The closest thing you could relate it to is sound; it lets us make these lovely music and audio references in the visuals and waveforms of objects that could be reshaped"







MONEY TALKS

Anthem **will feature two currencies: earnable in-game Coins, and a premium currency, Shards, that'll only be redeemable against cosmetic items. All future updates and DLC will be free. "We discussed a free-to-play model early on," Warner says. "It just wasn't a direction that the company was moving in – BioWare or EA. Dave Brevik did it with** ***Marvel Heroes*****, and I think it's an interesting business model. It has its ups and downs." Irving adds: "If you go free-to-play, you still have to have a profitable business or we can't continue to do an amazing live service for all our players. So what would you really be trading if you gave the game away for free? There's all that money you'd have to make to be profitable. And so then you get into the territory of being less player-generous. I think in the triple-A space, people are more comfortable paying the entry fee and then having a great player-generous model with no paid DLC, and optional vanity items that you can earn in-game currency to buy anyway."**

the people who want to get the most powerful gear, they'll have a different 'why', because they'll want to compete with friends. I think whatever those emotions are, if we have the right avenues for the various player types, it'll work."

There's no guarantee, of course: the market for this kind of game is crowded already, and its audience suspicious about what microtransactional traps may await them. Establishing the trust needed between players and the new IP that they need to connect to it emotionally will be tough, yes, but it's nothing BioWare – and Hudson – haven't done before. "It's been great to have Casey back," Warner says. "He has a very keen awareness of what 'good' looks like. It's interesting to see how his brain works and to see it go from applying that to building a game – which is how I first started working with Casey on *Mass Effect 3* – to see him apply that same kind of mentality to running a studio."

Indeed, after a short stint on the outside looking in, Hudson feels better placed than ever to guide BioWare, and *Anthem*, to where it needs to be in the wake of the studio's recent troubles. "Had I not gone and gotten some new perspective, skills and interests, I would have looked at that and thought, 'Hmm, I don't know what to do with that'," Hudson says. "But now, I feel like I actually have a good sense of what BioWare needs, and I want to be a part of getting the studio there." Having read the countless letters the studio has received over the years from fans, he knows what *Anthem* has to have to be a BioWare game. "What they describe to us so often is the power of playing a game where you can roleplay as someone and have an experience where, in your *real* life, you feel empowered, and you know how to handle a situation. People have played our games through cancer treatments and found a way to escape things and come out stronger. Those are the stories that really motivate us, and are kind of a meta version of what we do in our games. Once we have that – and we did a whole process where we were trying to figure out what that was – you can then apply it to something like *Anthem*, hold those values fixed, and not compromise on them."

With Hudson comes focus, experience – and the confidence to stick his neck out for a vision he believes in, even when there's a crowd of people holding pitchforks. "I find having done new IP a few times – and this happened with *Mass Effect* – is that human beings are very good at pattern matching. So they'll say, 'Well, this just looks like that, because it has this element'. But after it comes out, that's when suddenly you can experience it. Suddenly you're getting the final recipe and you go, 'Oh, now I know what it is – it's *Anthem*'." He laughs. "It helps to have been through it. With *Mass Effect* I'd explain to people the concept, but also hope it ended up to be true. And then it did."

The concept for *Anthem* – codenamed Dylan – is a lofty one. Like its namesake, Hudson wants the new IP to be timeless, to be talked about for years to come. "I don't think it's necessarily that the game itself continues to live forever, though that is a nice thought and goal," he says. "People will talk about *Mass Effect*, *Dragon Age* and *KOTOR*, and remember the time in their life when they played it and what it meant to them. That's what makes a game timeless. I really hope that we have that with *Anthem*."

What they might have, Warner thinks, is "the most emotional shooter of our decade!"

> "SOMEWHERE SOME YOUNG PERSON IS GOING TO PICK UP ANTHEM... IT'LL BE THEIR GAME"

He laughs, only half-joking. "Games you don't connect with emotionally are not games that you end up talking about years later. To me, that is the delight of making games, because I know that somewhere some young person is going to pick up *Anthem* and play it, and it is going to be that game for them. It'll be their game. That's such an amazing privilege. It can sound so pretentious to say, 'We really want you to emotionally connect to this game'. I do, but I want it to connect to lots of different people emotionally in different ways – whether it's a touching story, or a character that you particularly love, or an adventure that you tell your friends about, or whether it's just that adrenaline rush. It's all emotional." We think back to how we feel every time we step over the edge in our suit – terrified, then elated – and start to understand. "My favourite fantasy is the superhero discovery story," Irving says. "The average person who one day discovers that they are capable of something more. For me, that's what flight and the Javelins represent."

Warner lingers on the idea of flight. "It's a very powerful metaphor, I think. Everybody has felt constrained or held down by society. When you're a young person you feel constrained by your parents or by school and then later it's your job, or the law, or the man, it's whatever. In *Anthem*, everyone else is constrained. 'It's super-dangerous outside, stay inside, stay inside.' But you get to go outside. You get to not only go outside, but you get to leap up into the air, and fly away." ■

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AN AUDIENCE WITH...

JAKE KAZDAL

The Sega veteran and reformed club kid on the thrills of chasing the unknown

By Nathan Brown

Photography **Daniel Pearce**



Jake Kazdal is the founder, creative director, art director and CEO of indie studio 17-Bit. While based these days in Kyoto, he's had a peripatetic career, working for Tetsuya Mizuguchi in Tokyo during the Dreamcast era, then under Steven Spielberg in Los Angeles, with a brief sojourn in Seattle before he found his way back to Japan once more. In a way, the stamps in his passport mirror the fortunes of Japan's game industry; he was in Tokyo when the country was still the planet's creative fulcrum, then moved to the US west coast just as it rose to dominance. Now he's back in Japan, and the industry there is, if not fully recovered, then certainly on the mend. Here, over a curry in a Kyoto food court, he reflects on a fascinating career, and looks forward to something potentially even better.

You started working for Sega Japan in the late '90s. What was it like back then?

It was a new beginning. It was right at the start of the Dreamcast. Sega had some pretty radical vision for how to rebrand itself as not just a hardcore gamer machine. The Mega Drive was this black, sleek, cool-looking machine. The Dreamcast was designed to be very friendly and approachable. It was much more Super-Famicom-inspired: the bright colours, the light ding, the happy little logo. [Tetsuya] Mizuguchi-san had been tasked at the time to create this new division that was trying to do more experimental stuff, new stuff, to try to appeal to a broader audience.

It was a super-exciting time. When I got there, the Dreamcast had just shipped in Japan, and everything was just, like, pure potential. Up until that point, teams were smaller, they were flexible, the budgets were smaller, the turnaround time was quicker. The PS1 era was full of great, weird, Japanese quirky stuff that was all pretty low-budget. Yeah, there was *Final Fantasy* and some bigger-budget stuff, *Metal Gear* and things like that. But if you look at the mass of the catalogue, there was a lot of fun, interesting little projects. 'What's a 3D game? We don't know! Let's try this, let's try that.'

Now we were moving into the next generation. The hardware was more powerful and teams were getting bigger. In Japan there was not much industrial knowhow of higher resolutions. The west had already been doing more powerful PC games; they had more of a lexicon for how to handle high-end 3D graphics. As budgets got bigger these guys were like, 'Whoa'. All of a sudden they're in this big ship, and have never been in a storm like this before. I think that was when they started to get left behind – to get outmatched by the west, particularly the British, American and Canadian stuff.



Kazdal was a concept artist, modeller and animator on Dreamcast game *Space Channel 5*

"IT WAS A SUPER-EXCITING TIME. THE DREAMCAST HAD JUST SHIPPED IN JAPAN, AND EVERYTHING WAS JUST PURE POTENTIAL"

Western developers tend to be much more open when it comes to their information and tech. Is Japan's industry as secretive as it's portrayed to be?

Any big western studio would be, like, 'Hey, we spent all this time and money building a new engine, let's get as many people using this thing as we can'. Whereas every Japanese team I know from back then made a custon engine for every game, every time. If you really want to be able to manage the fine details of everything, it makes sense. But the amount of lost productivity is just staggering.

You grew up in the US, playing Japanese games. Did that change once you moved to Japan?

I'd been playing Japanese games my whole life. But I noticed a shift in my gaming habits once I moved. I was playing a lot of *WipeOut* and *Tony Hawk's Pro Skater*. I was playing *SSX*, *GTAIII* and *Halo*. I was like, 'I've never played this many western games before'. There was nothing that was particularly interesting to me at the time that was being made in Japan.

What was the social scene back then? Did Japanese studios keep themselves to themselves?

A big part of my community was Sega people, obviously. But my best friend worked for Namco, and I made friends with quite a few of those guys. One of my good buddies was at Polyphony [Digital], so I hung out with those guys – they were hard partiers, too, they used to be at a lot of the trance parties we went to. [*Nier: Automata* director] Yoko Taro used to work at Namco, and he was part of our crew too. I also had friends at Activision and Inis, and Mizuguchi-san had a very wide circle of friends.

It was pretty social. I was young, I was a big club kid, and the music scene was amazing. Mizuguchi-san's the nicest guy you'll ever meet, and spending time with him, going out to all these events and getting introduced to cool people, was amazing. It was a brilliant time, and the perfect time to be doing it. I was in my late 20s and had



Kazdal and *Rez* creator Tetsuya Mizuguchi are still close today, and Enhance Games producer Mark MacDonald helped write the story for *Galak-Z*



CV

A former Irem playtester and game counsellor for Enix America and Nintendo, Jake Kazdal's first gig after graduating art school was at Boss Game Studios, as a track artist on *Twisted Edge: Extreme Snowboarding* for N64. His career truly kicked off, however, after he moved to Japan in 1999 and got a job at Sega, working for Tetsuya Mizuguchi at United Game Artists on the *Space Channel 5* games and *Rez*. After four-and-a-half years he returned to the US to continue his studies, before joining EA Los Angeles to work on *LMNO*, the Steven Spielberg project that sadly never saw the light of day. During a stint at Zombie Studios as art director, he began work on a light-hearted RTS, *Skulls Of The Shogun*, from which his new studio 17-Bit, now based in Kyoto, was born.

no responsibilities. I miss part of that in Tokyo, but now I'm married, I have two kids – it would almost be worse to be up there now because you have all this stuff, like, teasing you. Kyoto's the right speed.

There are plenty of legends about staff working right through the night in those days. How does that tally up with a thriving club scene?
My friend Nana [Takamasa Shichisawa] was one of the art directors on *Gran Turismo*. Those Polyphony guys worked *so* hard. They were always at work. They had these beautiful offices – they had dorms, showers, a gym, a library. We'd be two or three hours out of Tokyo in the countryside, doing some trance party all weekend. He'd show up at midnight on Friday or Saturday, party until seven in the morning and be like, 'Well, gotta go back to work. I just wanted to come out and say hi'. I was like, 'This is not something I can comprehend.'

It sounds like an amazing time, but four-and-a-half-years after moving out to Japan, you decided to move back to the US. What happened?
UGA [Mizuguchi's Sega division United Game Artists] was a magical group of people. There were a couple of great years where things were just awesome: everything we were doing was cutting-edge and totally unproven, unseen, unknown. They were amazing, passionate years, working under this crazy, influential leader where everyone believed in what we were doing. I got addicted to it. But the games didn't perform super-well financially, and there was some restructuring within Sega. All those studios that were technically their own company – Sega Rosso, Smilebit, Nagoshi-san's division, Amusement Vision – were folded back in. *Rez* didn't sell well, on first release, at all. *Rez 2* didn't get the green light, although it looked *stunning*. I wish I'd kept the pitch video because it was fucking amazing.

Takashi Yuda was starting this new character-based platformer for GameCube, and I moved onto the project. I was thrilled to work with him again: he'd been around since forever, created *Space Channel 5* and Knuckles The Echidna, worked on *Castle Of Illusion* and all these classic games. He was like a hero of mine. We became good friends, and he was definitely my senpai, teaching me all this stuff.

We got up a lot of steam and made a really cool prototype. I don't know why, but it didn't make it out of the gate. We got moved onto an *Astro Boy* game. There was a new movie coming; there was a bunch of concept art for it, and we were just working to spec – 'Okay, here's what the movie looks like, make the game look like this'. All these people who'd been doing all this crazy, experimental, cutting-edge stuff were like, 'Oh, now I'm just a production artist. Make x, make y, make z'. There was a rumour we were going to be absorbed by Sonic Team and Yuji Naka's crew back at HQ in Haneda. A couple of the key guys, that had been the real creative geniuses on *Rez* and *Space Channel 5*, started leaving. You could tell the days of UGA were over.

It was sad. I was bummed. Some of my favourite senpais were leaving, and I was never a *Sonic The Hedgehog* fan – I had no intention of joining that team. I was feeling kinda burned out; Tokyo lifestyle was starting to drag a little bit. And I could see there was a glass ceiling for a guy like me, who couldn't read or write Japanese really. I wasn't going to get a big promotion. I decided I wanted to go back to school.

I learned so much from the lead guys on *Rez*: they were geniuses. I came from a traditional animation background, I was more of a 'wing it and see what happens' kind of guy. But these guys had such *process*. I could see immediately that this was the only way to stay at the cutting edge. To be a professionally trained designer: not just an artist, but a designer with a clear set of goals and a process. I looked for the best design school I could find, and it was the Art Center in Pasadena, California. I got accepted. I went there, meaning to come right back.

But you went to work for EA. What happened?
Right before graduation I got offered a position on the *LMNO* project, working directly under Steven Spielberg and an amazing team of concept artists at EA Los Angeles. I couldn't say no. It was a detour, but it was very progressive, very inspiring and challenging. We were trying to do too much – I think that's one of the reasons it didn't make it, we were just overambitious. But that's what game making is. It's where I met my future partners in *Skulls Of The Shogun*, and where 17-Bit got started. Without it, I would never have got where I am now.

Now you're back in Japan with your studio, 17-Bit. What's the Japanese indie scene like?
It's very international. I don't know much of a thriving, super-crazy Japanese-only scene. Most of the smaller studios I know, a good percentage of them are foreigners – French, British, American, Canadian, Australian...

Is that a cultural thing? It's a cliché, but there's that image of the job for life, where you join Nintendo out of college and stay there until you retire.
Imagine you're a young kid who goes to college, graduates and wants to be an engineer in games. Your parents and family are riding you to get a good job now you're out of school. Somebody at Nintendo offers you a job, and of course you're going to take it. And of course you're going to stay there for life. And everyone's going to go, 'Yay! You did it!' It's hard for us, as a little indie

"WE ARE NOT GOING TO GET TO WHERE WE NEED TO GO IF PEOPLE AREN'T INSPIRED AND EXCITED TO COME TO WORK EVERY DAY"



Steven Spielberg's LMNO project was officially cancelled by publisher EA in 2010

studio, to say, 'We've been down here for a couple of years now. Come join us!'

In the west, a lot of kids will graduate game school and go straight into their own indie studio. There have been plenty of success stories. But I always tell people, go get a job at a big corporation for a couple of years. Learn on someone else's dime. Think of it as College 2.0, except you're getting paid, probably a good salary, to learn the basics ins and outs of the whole process. Make connections and *then* go do your own thing.

So what do you do when you need to hire?

We've imported a couple of people from the States, but most of the guys here are long-time Kyoto guys. Most of them have worked together before at Vitei, which had worked with Nintendo directly for years, then lost the contract. I was only too happy to hire them. We'd just signed a deal and needed a bunch of senior engineers.

People here aren't looking: they just don't job hop the way they do in the west. Most of the guys that came in when I was at Sega are still there, 15 years later. This is, overall, the Japanese way of working. You get a good job somewhere, you stay there. It's how society works. It's changing: there's nowhere near the same job security there used to be. But I wouldn't suggest coming over here like, 'I'm going to start a new company and get all these local guys to come join me'. That would be difficult.

We get a lot of resumés: 'Hey, I love your games, I've been making games a long time, I'd love to move to Japan'. And we've gone through the process enough times – we know how to get the work visa and everything else – that we know how to get someone out here. But our headcount is low, we have an awesome staff, and we don't need anyone. I keep the resumés, though.

You mentioned feeling burned out towards the end of your time at Sega. How has that affected the way you run your own studio?

After killing myself so much on *Galak-Z* and *Skulls Of The Shogun* while my kids were little, I missed a lot of time with them. I made an executive decision to just not do that any more. I was building the company and every hour counted, but now, we don't want to work crazy hours. It just isn't worth it. People burn out, they get bitter, they get tired and make mistakes. We're not going to get to where we need to go if people aren't inspired and excited to come to work every day. I've seen the effects, and know what it does: at Sega we had some people who worked themselves to the bone and never recovered. That's not something I can ever approve of, and of which I no longer wish to be part.

So we work smart. We come in, we work all day, and we go home. We plan everything. Raj [Joshi, studio manager] and I are in our mid-40s. This is only through years of experience, and finally wrapping our heads round the whole thing. We can do it sustainably, and intelligently. It can be done.

Over the past couple of years Japan has been getting back to its best. What do you think is behind the turnaround in its games?

The PS3 era was a dark time for them. Now they've kinda got back to basics, doing what they do best, and have stopped trying to emulate the west – they aren't trying to be *Gears Of War*. I don't know that they'll ever get back to the glory days, where everything that was amazing was coming out of here. And I still don't play many Japanese games.

How come?

I don't like thirdperson action games, that's my problem. Except *Zelda* – I have no idea how they did it, but the camera doesn't drive me nuts. *Breath Of The Wild* is probably my favourite game of all time, it's fucking amazing. But for the most part I don't like thirdperson games, so I just tend to play firstperson shooters, survival games, a lot of indie stuff. And VR took me very hard very early on, it's a whole new medium that's fascinating to me.

What is it about VR that so appeals to you?

It's like I've been waiting for this thing my whole ▶



Skulls Of The Shogun **was a steep learning curve for Kazdal: the team had to make it compatible with the full Windows device family**



fucking life. There are a lot of new standards that are still to be defined in VR, and that's super-exciting. It brings me back to the UGA years. I love not knowing exactly where we're going, where it's dangerous and thrilling and exciting, where everything you do leaves a mark, becomes a flagpost.

I think that, in hindsight, we'll look back at this generation of game-creating like we look back at the first-gen N64 and PlayStation stuff. It's a massive paradigm shift, where old rules no longer apply and new standards are being defined. You see so many people coming out of film and moving into VR: 'I'm tired of working at Pixar, working on shaders. How many more breakthroughs are we going to make?' The language of film is so established, and has been for years. There's nowhere to leave your mark. But VR is this wild west. And the more we can get ahead of the curve, get experienced and understand the core tenets of this new medium, the better off we're going to be moving into the future.

You helped make *Rez*, and you're clearly in love with VR. What did you make of *Rez Infinite*'s Area X?

Oh I have to tell you this story, it's amazing. Mizuguchi-san and I are still very close, and he's working with Mark [Macdonald, *Tetris Effect* producer], who's one of my favourite people in the world. They were planning this art book for *Rez Infinite*, and Mark knew I'd kept my old sketchbooks from the development of *Rez*. He asked if they could have them.

So I start looking. And I can't find them anywhere. When I left Japan I threw all my shit in crates and sent it all back to the States. But I had this one box of sketchbooks and I was like, 'This is the most precious thing to me. Everything else here can be replaced, but these cannot.' I put them somewhere safe. And I didn't see them again for 16 years.

They're two weeks out from going to print. It's PAX Prime in the fall of 2016, and I was staying at my dad's house in Seattle for the summer, which I always do. He has this storage room, and every year he says, "I want to clear out that room and turn it into a bedroom." He says it again, and I'm like, yeah, sure. He says, "I'm serious. I want your shit out of here. If it's not out of there by the time you leave, I'm throwing it away." It's two days before I fly back to Japan.

I'm supposed to go to PAX that day. Mark's like, "Come to the suite, check out *Area X*. We're not announcing it yet, but you can come play it, spend time with me and Miz." My dad's going, "You'd better go down there and go through that stuff." I go down there and I'm tearing through everything, and I open up this box.

There they are. All of them. And it's not just *my* sketchbooks. It's [Noboru] Hotta-san and [Yasuhiko] Matsuzaki-san, the two leads – the boss guy and the environment guy. They were going to throw their sketchbooks away and I was like, "Nonono! I'll take it!" They gave me everything.

> "WE'LL LOOK BACK AT THIS GENERATION OF GAME-CREATING LIKE WE LOOK BACK AT THE FIRST-GEN N64 AND PLAYSTATION STUFF"

I'd already told Mark and Miz I couldn't find the books, and they're scrambling to get something else to fill the space. I go to their suite with this backpack, and I'm like, "Boom. I just found these things an hour ago." They're straight on the phone to Fangamer: "Stop the press! We have the art books!" They're freaking out. Mizuguchi-san and I were looking back through these things with tears in our eyes. They're memories: all these different iterations of all this cool stuff we did. It was an amazing day, and I was inspired already. And then I sat down and played *Area X* for the first time.

I've known this guy now for 20 years. He has never stopped talking about synaesthesia. He has never stopped being singularly focused on this sensation, this whole movement. His whole career is focused around that thing now. So to sit down and play that for the first time, to see how his vision has evolved, and how much closer we are to it... especially in VR, where you are *in* the sound, you are *in* the visuals, everywhere you look you are surrounded by everything that *is* that game. I cried. Like, 'Fuck. This is what you've been about, for so long.' It was awesome.

Was that what convinced you you needed to be making games in VR, or were you already on the path by then?

Well before then. We had the DK1 [the first Oculus Rift development kit] and there were no games, nothing available for it. One of our employees was a total hacker and was on Reddit just figuring everything out. We managed to hack *Half-Life 2* and *Left 4 Dead* to be playable in VR. I put it on and I was *in Left 4 Dead*. All of a sudden zombies are running down the hall to me *at human scale*, and my lizard brain is yelling at me, like, 'Get the fuck out of here'. I took it off and was like, "VR is the future. This is going to change everything. This is fucking crazy. This is fucking crazy." ■



Galak-Z **was born on PlayStation and PC, but has since made its way to Switch and mobile, published by Gungho Online Entertainment**

MOTION

In 1981, Disney laid down the fundamental principles of cartoon animation. It's time we did the same for videogames

By Jonathan Cooper

N PLUS S

The 12 basic principles of animation, introduced by Disney's Ollie Johnston and Frank Thomas in the 1981 book The Illusion Of Life: Disney Animation, are a great foundation for any animator. Ultimately, however, they were written with the concept of linear entertainment like TV and film in mind, and the move to 3D kept all of these elements intact due to the purely aesthetic change in the medium. Since 3D animated cartoons and visual effects are still part of a linear medium, they will translate only to certain elements of videogame animation — often only if the game is cartoonish in style.

As such, it is time to propose an additional set of principles unique to game animation that don't replace, but instead complement, the originals. These are the five core tenets of our new nonlinear entertainment medium, that when taken into consideration form the basis of videogame characters that not only look good, but feel good under player control — something the original 12 principles didn't have to consider.

1: Feel

The single biggest element that separates videogame animation from traditional linear animation is interactivity. The very act of the player controlling and modifying their avatars, making second-to-second choices, ensures that the animator must relinquish complete authorship of the experience. As such, any uninterrupted animation that plays from start to finish is a period of time in which the player is essentially locked out of the decision-making process while they wait for the animation to finish (or reach the desired result, such as landing a punch). The time taken between a player's input and the desired reaction can make the difference between creating the illusion that player is embodying their avatar, or is just a passive viewer on the sidelines. That is why cutscenes have for years been the only element in videogames to consistently feature a 'skip' option — because they most reflect traditional non-interactive media, which is antithetical to the medium.

Response

Game animation must always consider the response time — that is, the window between the player's input and the game's response to it — as an intrinsic part of how the character or interaction will 'feel' to the player. While generally the desire is to have the response be as quick as possible, that is dependent on the context of the action. For example, heavier or stronger actions are expected to be slower, while enemy attacks must be slow enough to be seen by the player in time for them to respond.

It is the game animator's remit, often working in concert with a designer and/or programmer, to offer the correct level of response to provide the best 'feel', while also retaining a level of visual fidelity that satisfies all the intentions of the action and the character. It is important to not sacrifice the weight of the character or the force of an action for the desire to make everything as responsive as possible, so a careful balancing act and as many tricks as are available must be employed.

Ultimately, though, the best mantra is that 'the player wins'. The most fluid and beautiful animation will always be cut or scaled back if it interferes too much with gameplay, so it is important for the game animator to have a player's eye when creating response-critical movements — and, most importantly, to actually play the game.

Inertia and momentum

Inertia is a great way to not only provide a sense of feel to player characters, but also to make things fun. While some characters will be required to turn on a dime and immediately start running at full speed, driving a car around a track that could do the same would not only feel unrealistic but would also mean there is no joy to be had in approaching a corner at the correct speed and shaving a second off your best lap. The little moments when you are nudging an avatar because you understand their controls are where mastery of a game is to be found, and much of this is provided via inertia.

Judging death-defying jumps in a platform game is most fun when the character must be controlled in an analogue manner, where they take some time to reach full speed and continue slightly after the input is released. This is also a design and programming challenge, but the animator often controls the initial inertia boost and slowdown in stop/start animations.

Momentum, meanwhile, is often conveyed by how long it takes a character to change its current direction or heading. The general principle is that the faster a character is moving, the longer it takes to change direction — via larger turning circles at higher speeds, or longer plant-and-turn animations if the player wants to turn 180 degrees. Larger turning

circles can be made to feel better by immediately showing the intent of the avatar, such as having the character lean into the turn or move their head towards it. But ultimately we are balancing within a very small window of time, lest we render our characters unresponsive.

Visual feedback

A key component of the 'feel' of any action the player and their avatar perform is the visual representation of that action. A simple punch can be made to feel stronger with a variety of techniques related to animation, beginning with the follow-through. A long, lingering held pose will do wonders for telling the player they just did something powerful. The animation on the attacked enemy is a key factor in informing the player just how much damage has been suffered, with exaggeration being a key component.

In addition, employing tricks such as camera-shake will help further sell the impact of landing the punch or gunshot, not to mention visual effects such as blood or flashes to further register the impact in the player's mind. Many fighting games employ a technique named 'hit-stop' that freezes the game for a single frame whenever a hit is registered. This further breaks the flow of clean arcs in the animations, and reinforces the frame on which the impact took place.

As many moves are performed quickly in order to be responsive, they might get lost on the player, especially during hectic fight scenes. Attacking actions can be reinforced by additional effects that draw the arc of the punch, kick or sword-swipe on top of the character in a similar fashion to the smears and multiples used in classic animation. When a sword-swipe takes only two frames to complete its arc, the player benefits mostly from the arcing effect it leaves behind.

Slower actions can be made to feel responsive simply by showing the player that at least part of their character is responding to their commands. For example, an avatar riding a horse can be seen to immediately turn the horse's head with the reins, even if the horse itself takes some time to respond to this and traces a wide circle as it turns. This visual feedback will feel entirely more responsive than the slowly turning horse alone would following the exact same wide turn.

A classic example of this is the difference between the early *Mario* and *Sonic The Hedgehog* games. Both rely heavily on inertia and momentum as core tenets of their gameplay, but whereas Mario will comically run on the spot as he ramps up to full speed or changes direction, Sonic simply runs slowly until he is fast enough to spin, and skids to a stop as he changes direction. Ultimately Mario feels better under player control because, while both characters perhaps handle similarly, at least Mario looks like he is trying hard to instantly match the player's desires.





Jonathan Cooper is an animator at Naughty Dog. This is an edited extract from his new book, Game Anim: Videogame Animation Explained, on sale February 3

2: Fluidity

Rather than being created using long, flowing animations, games are instead made of lots of shorter animations playing in sequence. As such they are often stopping, starting, overlapping and moving between each other. It is a videogame animator's job to be involved in how these animations flow together so as to maintain the same fluidity that they put into the animations themselves. A variety of techniques is used to achieve this, with the ultimate goal being to reduce any unsightly movement that can take a player out of the experience by highlighting where one animation starts and another ends.

Blending and transitions

In classic 2D games, a sprite's animation either played or it didn't. This binary approach carried on into 3D animation until developers realised that, due to characters essentially being animated by poses recorded as values, they could manipulate those values in a variety of ways. The first such improvement that arrived was the ability to blend across (essentially cross-fading animations during a transitory stage) every frame, taking an increasing percentage of a new animation's value and a decreasing percentage of the former as one ended and another began. While more ▶

THE MOST FLUID AND BEAUTIFUL ANIMATION WILL BE CUT OR SCALED BACK IF IT INTERFERES WITH

calculation-intensive, this opened up opportunities for increasing the fluidity between individual animations and removing unsightly pops between them.

For a basic example of this, take an idle animation and a run. Having the idle immediately cancel and the run immediately play on player input will cause the character to break into a run at full speed, but the character will pop as they start and stop due to the repeated nature of the player's input. This action can be made more visually appealing by blending between the idle and run over several frames, causing the character to more gradually move between the different poses. Animators should have some degree of control over the length of blends between any two animations to make them as visually appealing as possible, though always with an eye on the gameplay response of the action.

The same situation above can be improved further — albeit with more work — by creating brief, bespoke animations between idle and run (starting) and back again (stopping), with blends between all of them. What if the player started running in the opposite direction to which they were facing? An animator could create a transition for each direction that turns the character as they begin running in order to completely control the character's weight-shift as they lean into the desired direction and push off with their feet. What if they aren't running, but only walking? Again, the animator could create multiple directional transitions for that speed also. As you can see, the number of animations can quickly spiral in number, so a balance must be made between budget and team-size, and the desired level of fluidity.

Seamless cycles

Even within a single animation it is essential to maintain fluidity of motion, and that includes when a cycling animation ends and restarts. A large percentage of game animations cycle back on themselves so it is important, once again, to ensure the player cannot detect when this transition occurs. As such, care must be taken to maintain momentum through actions so the end of the animation perfectly matches the start.

It is not simply enough to ensure the last frame of a cycle identically matches the first: care must also be taken to preserve momentum on each body part to make the join invisible. This can be achieved by modifying the curves before and after the last frame to ensure they create clean arcs and continue in the same direction. For motion-capture, where curves are mostly unworkable, there are techniques that can automatically provide a preservation of momentum as a cycle restarts.

Care should also be taken to maintain this momentum when creating an animation that transitions into a cycle, such as how the stopping animation should seamlessly match into the idle. For maximum fluidity, the best approach in this case is to copy the approved idle animation, and the stopping transition, into the same scene, to manually match the curves leading into the idle, exporting only the stopping transition from that scene.

Settling

This kind of approach should generally be employed whenever a pose must be hit at the end of an animation. It is rather unsightly to have a large movement, such as an attack animation, end abruptly in the combat idle pose, especially with all of the character's body parts arriving simultaneously. Offsetting individual elements such as the arms and root are key to a more visually pleasing 'settle'.

Notably, however, games often suffer from too quickly resuming the idle pose at the end of an animation in order to return control to the player, but this can be avoided by animating a long tail on the end of an animation and allowing the player to exit out of it before the end if they provide a new input. This ability to interrupt an animation before finishing allows the animator to use the desired number of frames required for a smooth and fluid settle.

Settling is generally achieved by first copying the desired end pose to the end of an animation but ensuring elements such as limbs, even divided into shoulder and forearms, arrive at their final positions at different times, with earlier elements hitting then overshooting their goal, creating overlapping animation. Settling the character's root — perhaps the single most important element as it moves everything not planted — is best achieved by having it arrive at the final pose with different axes at different times.

IT IS ESSENTIAL TO MAINTAIN FLUIDITY OF MOTION, INCLUDING WHEN AN ANIMATION ENDS AND RESTARTS

Perhaps it achieves its desired height first as it is still moving left-to-right, causing the root to hit then bounce past the final height and back again. Offsetting the head and limbs in the order of character root lessens the harshness of a character fully assuming the end-pose on a single frame – though care must be taken to not overdo overlap, which may result in limbs appearing weak and floppy.

3: Readability

After interactivity, the biggest differentiator between game and traditional animation, in 3D games at least, is that the former will more often than not be viewed from all angles. This bears similarity to the traditional principle 'staging,' but a game animator cannot cheat or animate to the camera, nor can they control the composition of a scene. So, actions must be created to be appealing from all angles; it is not enough to simply get it right from a front or side-view. Game animators must take care to always be rotating and approving their motion from all angles, much like a marble sculptor walking around their work.

Posing for game cameras

To aid the appeal and readability of any given action, it is best to avoid keeping a movement all in one axis. For example, a combo of three punches should not only move the whole character forward as they attack, but also slightly to the left and right. Similarly, the pose the character ends in after every punch should avoid body-parts aligning with any axis, such as arms and legs that appear to bend only when viewed from the side. Each pose should be dynamic, with lines of action drawn through the character that are not in line with any axis.

For the motions themselves, swiping actions always read better than stabbing motions as they cover an arc that will be seen by the player regardless of camera angle. Even without the aid of a trail effect, a swipe passes through multiple axes, and therefore camera angles – so even if the player is viewing from a less-than-ideal perspective, they should still have an idea of what happened, especially if the character dramatically changes their line of action during poses.

All this said, play to the game being made. If the camera is fixed to the side, as in a 1v1 fighting game, then actions should be created to be most readable from that angle. Similarly, if you are creating a run animation for a game mostly viewed from the rear, then ensure the cycle looks best from that angle before polishing for others.

Silhouettes

At the design and concept stage, the animator should get involved in helping guide how a character might look – and not just to avoid issues such as hard armour-like clothing at key versatile joints such as shoulders or waists. They should also help guide the design so as to provide the best silhouettes when posed. A character with an appealing silhouette makes the job of animating far easier when attempting to create appeal than one composed entirely of unimaginative blobs or shapeless tubes for limbs.

It is advisable to request 'proxy' versions of characters at early stages of development so they can be roughly animated and viewed in the context of the gameplay camera – which, due to wide fields of view, often warp the extremities of character as they reach the screen's edge. Generally, the most appealing characters look chunkier and thicker than they might in real life, due to them being warped and stretched once viewed through the game camera.

Collision and centre of mass

As with all animation, consideration must be given to the centre of mass (COM) of a character at any given frame, especially as multiple animations transition between one another so as to avoid unnatural movements when blending. The COM is generally found over the leg that is currently taking the full weight of the character's root when in motion, or between both feet if they are planted on the ground when static. Understanding this basic concept of balance will not only greatly aid posing, but will also avoid motions looking wrong to the player without them knowing exactly the issue.

This is especially true when considering the character's collision, or location, in the game world. This is the single point where a character will pivot when rotated, and, more importantly, where the character you're designing will be considered to exist in the game at any given time. You will always animate the character's position in the world when animating away from the 3D scene origin, though not so if cycles are exported in place. Importantly, animations are always considered to be exported relative to this prescribed location, so characters should end in poses that match others (such as idles), relative to this position. ▶

4: Context

In linear animation, the context of any given action is defined by the scene in which it plays and what has happened in the story up to that point. The same is impossible in game animation. Often the animator has no idea which action the player performed beforehand, nor the setting in which they are performing the action. More often than not the animation is to be used repeatedly throughout the game in a variety of settings, and even on a variety of different characters.

Distinction vs homogeneity

Due to the unknown setting of most game animations, the animator must look for opportunities to give *character* to the player and non-player characters whenever possible, and must also consider when they should avoid it.

If, for example, the animator knows that a particular run cycle is only to be used by a particular character, then they can imbue it with personality that matches the character description. If they can create a variety of run cycles for that character in different situations, so much the better. Are they strong and confident initially, but later suffer loss or failure and become despondent? Are they chasing after someone, or running away from a rolling boulder about to crush them? The level of distinction the animator should put into the animation depends on how much control they have over the context in which it will be seen.

However, if an animation is not designed for the player character but instead for multiple NPCs, then the level of distinction and notability should generally be dialled down so as to not stand out. Walks and runs must instead be created to look much more generic, unless the animation is shared by a group of NPCs – all the soldiers in a game might run differently from all the civilians, for example. Almost always, the player character is the most unique of all a game world's inhabitants, so this should be reflected in their animations.

Repetition

Similarly, within a cycling animation, if the action is expected to be repeated endlessly, such as an idle or run cycle, then care must be taken to avoid any individual step or arm-swing standing out against the rest lest it render the rhythm of repetition too apparent to the player – ie every fourth step has a noticeably larger bounce.

Stand-out personality can instead be added to on-off actions or within cycles via 'cycle-breakers' such as the character shifting their footing after standing still too long, performing a slight stumble to break up a tired run, or even by modifying the underlying animation with additive actions.

Placement

A key factor in setting the exaggeration of movement is the relative size on screen of the character as defined by the camera distance and field of view. While cameras have drawn closer and closer as the fidelity of characters has increased, players still need to see a lot of the environment on screen for awareness purposes, so many games may show characters that are quite small. Distant cameras require actions to be much larger than life so they can be read by the player.

The same is true of enemy actions that are far off in the distance, such as damage animations to tell the player they landed a shot. Conversely, only really close cameras such as those employed in cutscenes afford subtleties like facial expressions – here, overly theatrical gestures will generally look out of place. It is important as a game animator to be aware of the camera for any particular action you are animating. The wide field of view of the gameplay camera will even distort the character enough to affect the look of your animation, so as ever, the best way to evaluate the final look of your animation is in the game.

5: Elegance

Game animations rarely play on their own. They require underlying systems within which they are triggered, allowing them to flow in and out of one another at the player's input – often blending seamlessly, overlapping one another and combining multiple actions at once to ensure the player is unaware of the individual animations affording their avatar motion.

If not designing them outright, it is the game animator's duty to work with others to bring these systems and characters to life, and the efficiency of any system can have a dramatic impact on the

production and the team's ability to make changes towards the end of a project. Just as a well-animated character displays efficiency of movement, a good, clean and efficient system to play them can work wonders for the end result.

Simplicity of design

The industrial designer Dieter Rams once stated that good design "involves as little design as possible", concentrating only on the essential aspects. A good game animation system should similarly involve no more design than is actually required, since bloated systems can quickly become unworkable as the project scales to the often-required hundreds or thousands of animations.

Every unique aspect of character-based gameplay will require a system to play back animations, from the navigation around the world to combat to jumping and climbing to conversation and dialogue and many more. Here the game animator must aid in creating systems to play back all the varied animation required to bring each element of character control to life, and often the desire to create many animations will come into conflict with the realities of production, such as project length and budget.

Thankfully there are many tricks that a team can employ to maximise their animation potential, such as re-using and sharing, layering and combining animations to create multiple combinations, or ingenious blending solutions to increase fluidity without having to account for every possible transition outcome. While the absolutely simplest solution is to do nothing more than play animations in sequence, this will rarely produce the best and most fluid visuals. The smartest approach is to manipulate animations at runtime in the game engine to get the most out of the animations the team has the time to create.

Bang for buck

Just as we look to share animations, being smart about choices at the design stage should create a workable method of combining animations throughout production. This should in turn prevent unique solutions being required for every new system. For example, a well-thought-out system for opening doors in a game could be expanded to interacting with and opening crates if made efficiently. When building any one system, anticipating uses beyond the current requirements should always be considered.

A good approach to system design will produce the maximum quality of motion for the minimum amount of work. It must be stressed that every new animation required not only involves its initial creation, but later modification over multiple iterations as well as debugging towards the end of the project. Every stage of videogame development is multiplied by every asset created, so avoiding adding 20 new animations for each object type is not only cost-effective but also allows more objects to be added to the game. All that said, sometimes the solution to a system is to just brute-force create lots of animations if your budget can allow.

Sharing and standardisation

As mentioned earlier, it is important to know when to keep animations generic and when to make unique ones. If the game requires the player character to interact with many objects in a game, then it would be wise to standardise the objects' sizes so you can use one animation to accommodate all objects of a particular size.

The same goes for world dimensions, where if a character can mantle over objects throughout the game then it makes sense to standardise the height of vaultable objects in the environment so the same animation will work anywhere – not least so the player can better read the level layout and know where they can and cannot vault.

That said, if your gameplay is primarily about picking up objects or vaulting over things, then it may be worth creating more unique animations to really highlight that area and spend less effort on animations elsewhere. This again feeds back into the idea of getting the most bang for your buck, and knowing what is important to your particular game.

All these decisions must come into play when designing systems for your game as very few teams can afford unique and bespoke animations for each and every situation. Nevertheless, beautiful game animation can come from even single-person teams that focus on one thing and do it very, very well. This is the crux of good design. ■

A GOOD APPROACH WILL PRODUCE THE MAXIMUM QUALITY OF MOTION FOR THE MINIMUM AMOUNT OF WORK

THE MAKING OF...



HOLLOW KNIGHT

How a world revealed itself to its patient creators, and became the setting for a modern classic

By Jen Simpkins

Format PC, PS4, Switch, Xbox One
Developer/publisher Team Cherry
Origin Australia
Release 2017

Hollow Knight – a game about a subterranean insect world, where nails appear large enough to be swords and caterpillars are the size of freight trains – was never meant to be big. In 2019, Team Cherry's debut is a success of behemothic proportions. Sales of the game on Steam surpassed one million back in June last year, the day before it was due to release on Switch. When it did, after a surprise announcement during Nintendo's E3 Direct, it sold 250,000 copies in its first two weeks. It was meant to be a two-hour jaunt: now, Hallownest's dizzying maze of tunnels webs out ceaselessly into the dark, players poking into the corners of its sprawling geography for days on end. 'Scope creep' doesn't quite cover it: this is the story of a world that took on a life of its own.

The people at the centre of it, **Ari Gibson** and **William Pellen**, met through mutual friends: Gibson worked in animation, Pellen in web development. In 2014, the two entered a game jam, and *Hungry Knight* was born – made in 72 hours, you moved the titular character around a field, eating fruit every ten seconds to refill a draining hunger meter. Pellen was inspired to create a fruit-eating bug character by a recent playthrough of *Pikmin*. "And it's easy to represent a bug with very few lines," says Gibson, the game's main artist. "When you're thinking about jams, you're thinking about things that are small, that you can create with relative ease. Bugs can be depicted quickly and at a small scale, and have those graphic qualities – those distinct horns and distinct body shapes."

Another, later game jam seemed tailor-made for another exploration of the idea. The theme was 'Beneath The Surface' – they missed the deadline, but "it got us thinking about what we could make if we wanted to make a really small, quick game." Pellen says. "If you think about an ant nest, it fits really well into the idea of a Metroidvania map. When we came up with the concept, a ruined underground kingdom full of insects, then it was easy to start thinking: 'What does their little world look like? What would a snail be doing here, or a grasshopper?' But the idea was *way* smaller when we started."

Hollow Knight started off in Stencil, with Pellen teaching himself to program via its accessible visual coding system. "I'd made a platforming character in that, and we used it for the *Hollow Knight* character,' he says. "I said,



Segmented HP, Pellen says, "helps because you know most of the time how many hits you can take. You can make those judgements faster, which means we can put pressure on"

'Let's just work on this until we've got two hours of running around in a world.'" Hallownest started from its central hub area, the town of Dirtmouth, and you'd descend into a tutorial-type zone, the Crossroads. Three more areas would surround it: a fungus area, a city and a (later cut) bone area, each with its own boss to defeat. "That was the world for a while, and that

"WE'RE NOT CONTROLLING YOUR ADVENTURE… THE WORLD WILL WAIT FOR YOU TO TAKE IT AT YOUR OWN PACE"

eventually grew and grew, and each bit split into different parts," Pellen says. "Ari started working on the basic bits of art, pieces of the world, and I started making the character straight away – its dash, its jump, its attack."

In the basic caves, enemies were introduced to test player movement and combat. "It looked a lot like what the final version really looks like", Gibson says, "with a character that behaves and looks almost identical to the final version. So then it became a case of filling in a world around it." Pellen adds: "You can kind of see, if you look at the map, that it kind of starts with Dirtmouth and Crossroads, and then things spread out from that. And that basic structure of fighting those three bosses and then returning back to the Crossroads, it's still there." Gibson laughs: "Everything else is scope creep." The bigger it got, the more the two realised that they wanted to do the idea justice and work on it full-time. At the end of 2014, they took the project to Kickstarter, hoping for $25,000 – they raised around $43,000, and brought in a third team member, technical director David Kazi, who knew Unity and could move development into the engine to facilitate the larger scale and console ports. *Hollow Knight* had room to grow.

The austere Forgotten Crossroads, as it's now known, set the aesthetic touchstone. "For a time, the game looked like that in its entirety, when it was at a very small scale," Gibson says. "The variants like Greenpath were something that developed as we just explored that network of caves and found out what new areas looked like." But even as the rest of the world began to flourish, it was important to Team Cherry the carefully pitched tone of the starting area was preserved. "The idea is that it's sort of like a microcosm of the game, which means it's got a few loops that don't have an endpoint straight away, places where you find you can't go any further until you come back with a power-up."

The pace, too, is strictly set, with new abilities being handed out later than in most Metroidvanias; the "dreary melancholy" of the place, Gibson felt, suited an approach where they would take a step back, allowing the player space to orient themselves in the caves. "The list of core powerups was there from the start of development, which was when we had a much shorter game," Pellen says. "As it expanded, gaps appeared between all these power-ups – but rather than trying to think of new power-ups, it seemed to fit the tone to space these key moments out." Keeping the character's moveset simple, Gibson says, helped "break that feel of a directorial rhythm. Like, we're not controlling your adventure through the world, and the world will wait for you to take it at your own pace."

Instead, the spaces were filled with lore-revealing curiosities, hidden Grubs to rescue and deliver home, the optional Charms that allow you to completely reshape the Knight's loadout of abilities. Most importantly came all manner of memorable characters, voiced by Gibson, Pellen, friends and family: the ever-imperiled Zote The Mighty; the Last Stag, who regales you with tales from Hallownest's past as you ride it from station to station; Cornifer, whose humming you follow to find a map to fill in while exploring each area. "We were constantly playing it, so we were always *in* it," Pellen says, "which ▶

means we'd quickly get a feel for when there's a lull, when something feels a bit flat, or abrupt."

The two would play through an area, and discuss – the need for an extra NPC encounter, perhaps, and who it would make sense to meet there. "You just listen to the world, and what would be believable within it," Gibson says. "And that also means you can go through a phase where perhaps you're meeting several NPCs very rapidly in a row, or engaging two or three big bosses that aren't spaced out in perfect chunks. But because it has the relevant context, it actually starts to make the world feel more believable." By that metric, characters like the Hunter – a bloodthirsty NPC who gives you a journal to document all the enemy types you kill – began to appear in lieu of a simple menu option. *Hollow Knight*'s world was becoming more place than videogame, and getting larger every day.

Team Cherry's game-jam beginnings influenced the way it worked as a studio: starting small, from the tried-and-true structures of series such as *Zelda* and *Castlevania* combined with all the details – the traps, the tricks, the trust in the player – the devs felt they would want from a game. "When you see all these little things coming to life in front of your eyes at a rapid rate, possibly within hours, that's hugely motivating," Gibson says. "That's the secret that allowed us to just keep going with all our expanding and building, and making this world ever larger and ever more full of strange characters – the loop is just *so* quick."

Indeed, the unlit, skittering abyss of Deepnest – one of *Hollow Knight*'s most infamous areas – was built from cocooning layers of nastiness. There was a big, empty space in the bottom-left of the map: they had the arachnid theme they wanted to explore, and a lantern item but only a few places to use it. Thus, the area began to spin itself into shape. "We had a tone we wanted to hit," Pellen says, "so it's drawing on the things that trigger that stuff – tight spaces, having your moveset limited, and previously established rules being broken or shifted around." Gibson adds: "80 per cent of *Hollow Knight* is ideas that bounce from one of us to the other, and then bounce back, and then bounce off to a new place, and then suddenly spiral out to some huge elaborate thing like a Deepnest." Or, indeed, putting a save bench where hapless adventurers would most likely land with low health after falling through a floor. "The impactful part is having to dig your way back to a safe area – or even further in," Gibson says. "If you overcome that – and possibly some people don't and they leave in despair – that's a great reward for tenacity."

Q&A



Ari Gibson
Co-founder, Team Cherry

What was the reasoning behind the game's HP system?
You can refill your 'soul' provided you're playing quite well, so it means we didn't have to give you a lot of health at the start – or ever. So you frequently spend time on low health, with the ability to heal if you get to a safe spot. By starting with so little health, and by often spending periods of time on one or two HP, there's a tension that fits the scary, lost, dark spaces you're exploring.

How did you go about balancing the hit-to-soul return ratio?
We got it to a level where we thought it was okay early on. Then we ran a small beta, and it quickly turned out that it was *way* too hard, so we made adjustments. But that beta, which was well received, gave us the confidence to go through the rest of the year-and-a-half of development. You learn there are other people who have a similar taste to you – that you're not alone with strange, esoteric ideas about what makes certain things good. That's rewarding.

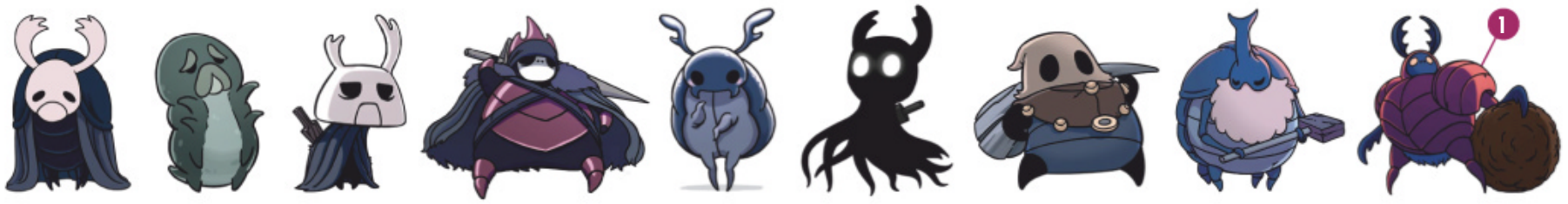
What's the benefit of working as a two-person team?
There's a lot less talking going on than you might imagine. 90 per cent of game-making is just labour, and it's not particularly romantic or anything – it's just sitting at your computer and pushing buttons, drawing pictures, plugging things together. But it is of *enormous* benefit to feel like half of the weight of that project you are not responsible for, and will be handled by someone else who is going to do a better job than you ever could. There's an emotional element to it too, which is that we're humans and we're social creatures, and sitting alone in a basement for three years can be draining.

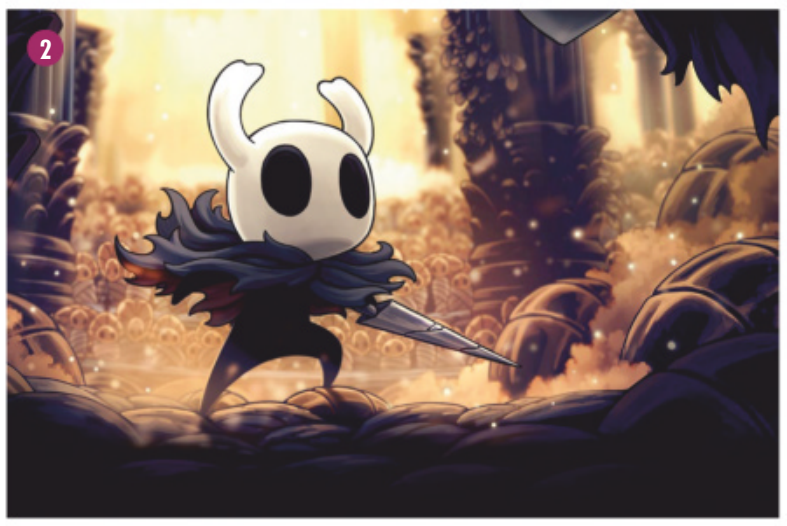
You might assume Team Cherry hasn't suffered anything of the sort in the development of *Hollow Knight*, which was instantly beloved by Kickstarter backers, praised by beta testers, and immediately garnered glowing reviews post-release. Towards the end of 2015, however, things were getting dicey. "We ran out of money," Gibson says. "William was buying ham ends from the market." "Assorted meat ends," Pellen clarifies, before Gibson continues: "Assorted meat ends. We just used what we had to develop the game, and then right at the very end, maybe a month before…" He laughs, and Pellen finishes the thought: "The guy across the hallway was bringing us leftover sandwiches from his meetings. They were good!"

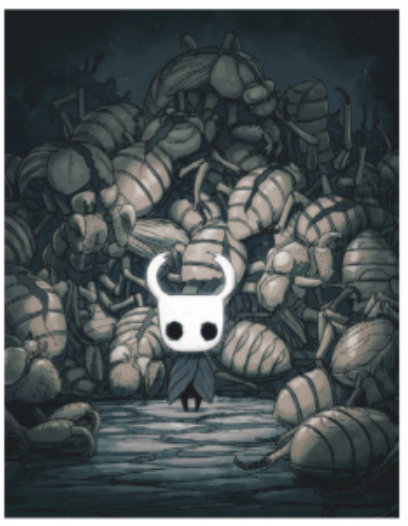
"Even at that point we were having quite a good time," Gibson says. "You find there are plenty of ways to live cheaply when you need to, and have people who are willing to help you out. We weren't doing crazy things like remortgaging our houses, or going into debt. So even if the game wasn't a success, we weren't going to end up on the street." Pellen recalls: "The whole thing was quietly difficult, really. There weren't any big mishaps, but at the same time, we didn't really breeze through – we put a lot of hours into it."

With a budget of $100,000, however, even a moderate success would mean Team Cherry could make another game, which was the ultimate end goal. 'Success' barely covers it. *Hollow Knight* quickly covered its costs and more besides, meaning Team Cherry could start on free content packs, including additions such as pins for maps as well as boss fights and a new fast-travel mechanic. "Even when we were doing those things, I was wary," Pellen says. "If you spend too much time filing it down, you start to make the player aware of the artifice." Gibson explains further: "It's a big, dangerous kingdom – it's not meant to be an even, polished thing. It's good for us, because it means we don't have sleepless nights afterwards, wishing what could have been. We get to think, 'That's Hallownest as it exists', and then eventually move on to other worlds."

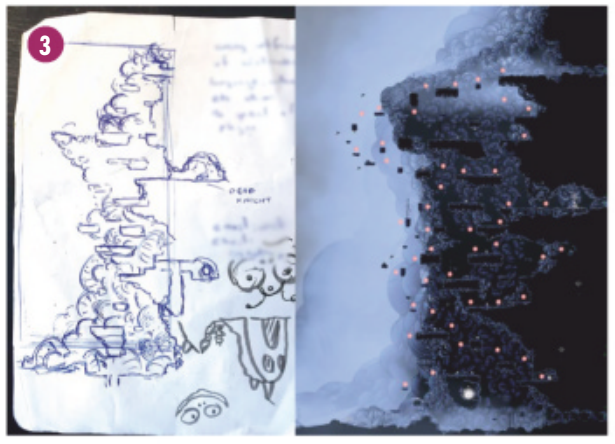
There's no guarantee that their future creations will be as fortunate. "There have been a lot of lucky moments with our timelines that have worked well for us," Pellen says. Indeed, it's hard to think of a better console for their tiny, absorbing, all-consuming game than Switch ("Yeah, it's 1:1 scale on the handheld," Gibson grins), whose success prompted the abandonment of the Wii U port in favour of it, and was yet another shot in the arm for Team Cherry. But in *Hollow Knight*, Gibson and Pellen proved themselves students of the classics, and modern masters of world-building. Reflected in their debut game is an understanding of the merits of patience and poise in the face of a grand challenge. And, moreover, what it takes to tempt an adventurer beneath the surface – to speak to "the compulsion," as Pellen puts it, "to dig into the darkness, to illuminate it and start to map it out." ■

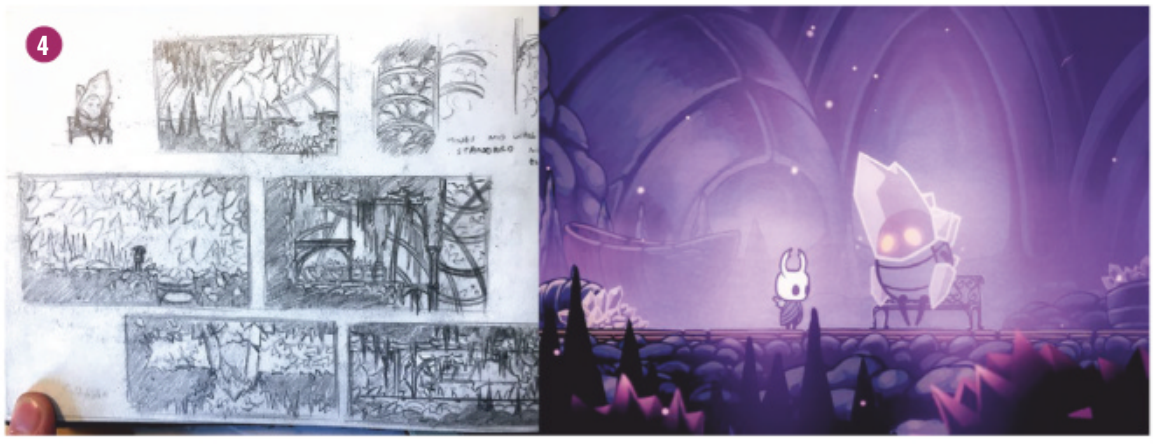






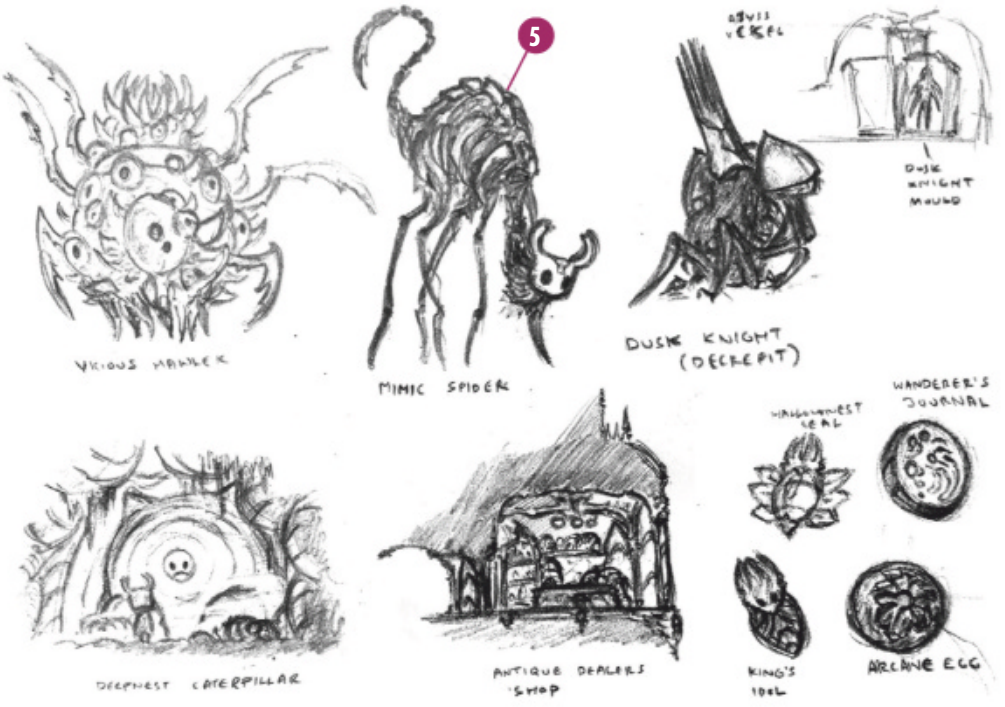








1 Voices were done by Gibson and Pellen, as well as family members including Pellen's mum. "We'd get them in and write down gibberish, or get them to make up their own."
2 Time constraints at game jams informed the Knight's simple design. Gibson: "I had a sketch, but I've lost it, where it was an alien and not a bug: a white head with black eyes."
3 The Howling Cliffs area. "There's no middle step," Gibson tells us. "Once the sketch is done, which takes three or four minutes, you're in Unity making what will be the final scene."
4 A save bench in the Crystal Peaks is guarded by a boss fight. "We're always thinking of different types of rewards to give out," Pellen says.
5 Gibson: "In Unity, all the enemies and NPCs have generic names, so we often forget the final names. We're so used to calling them Mimic Spider or Fat Knight." Pellen adds: "They came at the end. 'Oh, we have to think of names for 150 enemies, let's do it!'"



STUDIO PROFILE

FAILBETTER GAMES

The Fallen London developer on making failure fun and treating an audience like adults

By Chris Schilling



FAILBETTER GAMES LTD

Founded 2009
Employees 13
Key staff Paul Arendt (CEO, art director), Chris Gardiner (narrative director), Olivia Wood (writer and editor)
URL www.failbettergames.com
Selected softography *Fallen London, Tales Of Fallen London: The Silver Tree, Sunless Sea, Sunless Sea: Zubmariner*
Current projects *Sunless Skies*

As it approaches its tenth birthday, Failbetter Games is a studio in rude health. Its browser-based free-to-play debut, *Fallen London*, remains an ongoing concern with a loyal player base almost a decade after launch. It's about to release its third major game set within that same universe in horror-inflected narrative adventure *Sunless Skies*. And if CEO and art director **Paul Arendt**'s Twitter feed is anything to go by, there are plenty still playing and enjoying its predecessor, *Sunless Sea*. Not bad for a developer whose stock-in-trade is disaster – or tempting its players towards it, at any rate. "The clue is in the name of the company," Arendt tells us. "Failure's fun. Spiralling catastrophe is kind of our thing."

In many ways, Failbetter's output so far has been the antithesis of the traditional power fantasy. "Empowerment is, well, it's everywhere in games, isn't it," Arendt continues. "Fantasies of success and fulfilment. Yeah, we have a bit of that, but I think a lot of our games are fantasies of failure. And of vicarious horribleness. Of starvation and cannibalism and making terrible pacts with the old gods and so on."

For all that it might be cruel to its players once they've hit start, Failbetter is incredibly considerate of them otherwise; indeed, its openness and willingness to listen to its community is one of the secrets behind its success. Back in 2009 when the company was founded, it was just two people: Arendt and Alexis Kennedy. The pair launched *Fallen London*, originally known as *Echo Bazaar*, the same year. This vision of an alternative Victorian London, a heady combination of gothic prose and Lovecraftian horror, began to attract a cult audience who revelled in this strange world and its dark, witty writing. "It's generally a louche place to be," Arendt says, attempting to sum up its appeal. "Right from the start it was much more relaxed than real Victorian society, because you, the player, were just brilliant at everything. You could become a burglar or a detective or you could just wander around collecting pets. It's basically a Choose Your Own Adventure model with a buttery RPG sauce layered on top."

During its first three months, the game was completely free to play. Thereafter, it was monetised by limiting action points, allowing players to experience the narrative in piecemeal fashion without spending a penny, or to pay small amounts to replenish their points and continue the story. In 2011, it introduced a cheap subscription model for 'exceptional friends', which allowed



CEO and co-founder Paul Arendt and editor Olivia Wood believe in making text a reward. "We want to get past the idea of reading in games being troublesome," Arendt says

the game's growing fanbase to expand their daily actions. By that time, Kennedy and Arendt had invited several other writers to contribute to a world that boasted four novels' worth of words – now, of course, it's quite some way beyond that – and an increasingly labyrinthine lore.

Throughout that time, Arendt says, the studio had been regularly communicating with its "very active, very lovely, very opinionated" userbase, using a particularly ingenious method to survey its players. Failbetter had opted for a diegetic approach, sending street urchins to approach player-characters to request feedback. "People like to roleplay characters but in quite a knowing, ironic way. So addressing them as the developer within the world just felt like a natural option," Arendt says. "And they were generally charmed rather than irritated by this."

"IT WAS CLEAR TO US THAT WE HAD SOME FANS OF FAILBETTER, BUT WE HAD MANY MORE FANS OF FALLEN LONDON"

In 2012, news arrived of a standalone prequel expansion. If it didn't know already, Failbetter was about to get a demonstration of its community's enthusiasm for more *Fallen London*. Within seven hours of its Kickstarter campaign going live, *The Silver Tree* had breezed past its $10,000 target, eventually topping more than four times that amount. Later that same year, Failbetter launched a second crowdfunding drive, this time for a completely new project, card-based RPG *Below* (not to be confused with Capy's similarly named dungeon-crawler). It fell well short of its goal. "It was clear to us that we had some fans of Failbetter, but we had many more fans of *Fallen London*," narrative director **Chris Gardiner** says. "This is common to fandom, I think – you do get people who are fans of creators, but more commonly you get fans of worlds or characters or stories."

As such, when it returned to the well in late 2013, it did so with a more pragmatic idea. Once again, the urchin knocked on the doors of *Fallen London*'s players, but this time the pitch was much more appealing. "I think we said, 'A 2D *Elite* with steamships'," Arendt laughs. But, crucially, this was to take place in the underground ocean, or Unterzee, that surrounds the world of *Fallen London*. "We wanted to go for broke and make a proper PC game incorporating this universe, and also incorporating something we felt really strongly about, which is that reading in games is underrated and an incredible atmosphere builder," he says.

This time, Failbetter was asking for much more than the $10,000 goal it had set for *The Silver Tree*, albeit for a much more ambitious game. Still, if there was any anxiety at the studio about hitting the £60,000 target, it was quickly dispelled. By the end of its campaign, Sunless Sea had reached £100,000 – enough for a further expansion, *Zubmariner*. "It was almost too good to be true. Obviously back then Kickstarter was very new, and we hit the crest of the wave with it," Arendt says. But if anything, it was its later success during its spell in Early Access that made a bigger difference to the game. "It wasn't only peak optimism for Kickstarter, it was peak optimism for Early Access as well," Gardiner adds, acknowledging that it had launched at just about the perfect time. "We wanted to hear from people while we were making it, to see if we ▶





Development of *Sunless Skies* helped bring Failbetter's art and writing teams closer together, with in-game text directly informed by the visuals present in early builds. Both groups encourage one another, Wood tells us. "It's a big love-in, really"

were heading in the right direction," Arendt says. "I think on the whole that was really fruitful. We may have spent longer in Early Access than we planned to, but that's normal."

Still, it wasn't exactly plain sailing, particularly when it came to the final stretch goal. *Zubmariner* was no ordinary expansion, but rather conceived as "*Sunless Sea*, but under the water," as Arendt puts it. Instead of simply building an additional region, Failbetter essentially had to remake the game from a new perspective. "I won't lie, it was hard," he says. "But it worked out in the end. And I think our audience really appreciates [us going] the extra mile." So while it took longer than anticipated, the result was transformative. "To the point where it pains us now if we see someone playing *Sunless Sea* without the expansion. It's like, 'Ugh no, don't!'" Gardiner laughs.

Zubmariner was in its final stages of development when Failbetter lost one of its helmsmen. Alexis Kennedy left in June 2016 to found Weather Factory (most recently responsible for *Cultist Simulator*, another Kickstarter success) though by then, Failbetter had grown to 15 full-time staff, which softened the blow. "He wanted to go off and do other stuff," Arendt says, "And he's often done his own thing. But the timing of that was such that we were ready to move on. We were just finishing off *Zubmariner*, so in some ways it was a clean break. We sat down and said, 'Okay, what next?'"

By then, Failbetter had welcomed an important new crew member on board, another sign of the studio's bond with its community. When *Sunless Sea*'s Kickstarter launched, editor **Olivia Wood** was a fan; before development of *Zubmariner* concluded, she was among the full-time staff. "I was one of the first people to actually back *Sunless Sea*, partly because I missed out on *The Silver Tree* Kickstarter," she says. "I was hovering over the button and I clicked the second it went live, and went, 'What? I'm number nine?!' It was almost like we were fighting each other to get in there first, which is just ludicrous."

Wood's experience as an editor (her specialism in sci-fi and fantasy has seen her work with the likes of Terry Pratchett and Sarah Pinborough) had already led her to approach Failbetter with feedback. "Ages before *Sunless Sea* I'd sent in loads of support tickets, and when I joined the company I was quite embarrassed by how many I'd sent," she laughs. The studio trialled her on a freelance basis, and gave her some of the work that had been submitted by *Sunless Sea*'s various contributing writers. On her first day she produced nine pages of notes on a single freelancer's work. "At which point, they said 'Oh god, we do need an editor!'"

"IT PAINS US NOW IF WE SEE SOMEONE PLAYING SUNLESS SEA WITHOUT THE EXPANSION. IT'S LIKE, 'UGH, DON'T!"

Using writers outside its internal team has benefits for games like *Sunless Sea* and *Skies*, with a range of voices giving each of the islands and ports a distinctive flavour, but it has its downsides, too. "It's just not reasonable to expect a freelancer to be completely on top of ten years of incredibly fiddly lore. And that's our responsibility," Gardiner says. Indeed, part of Wood's job is to ensure that everyone's singing from the same hymn sheet, especially when it comes to its world's more fantastical elements. "One of the hardest things to convey is exactly what kind of weird fits and what doesn't," Wood says. "Chris has a bunch of guidelines that we share with freelancers, which is how to make your writing weird without making it too far-fetched. Sometimes people go a little bit *too* Cthulhu, or a little bit *too* magic fantasy. But as soon as we've reined them in and they've 'got' the weird, most writers seem to be able to run with it."

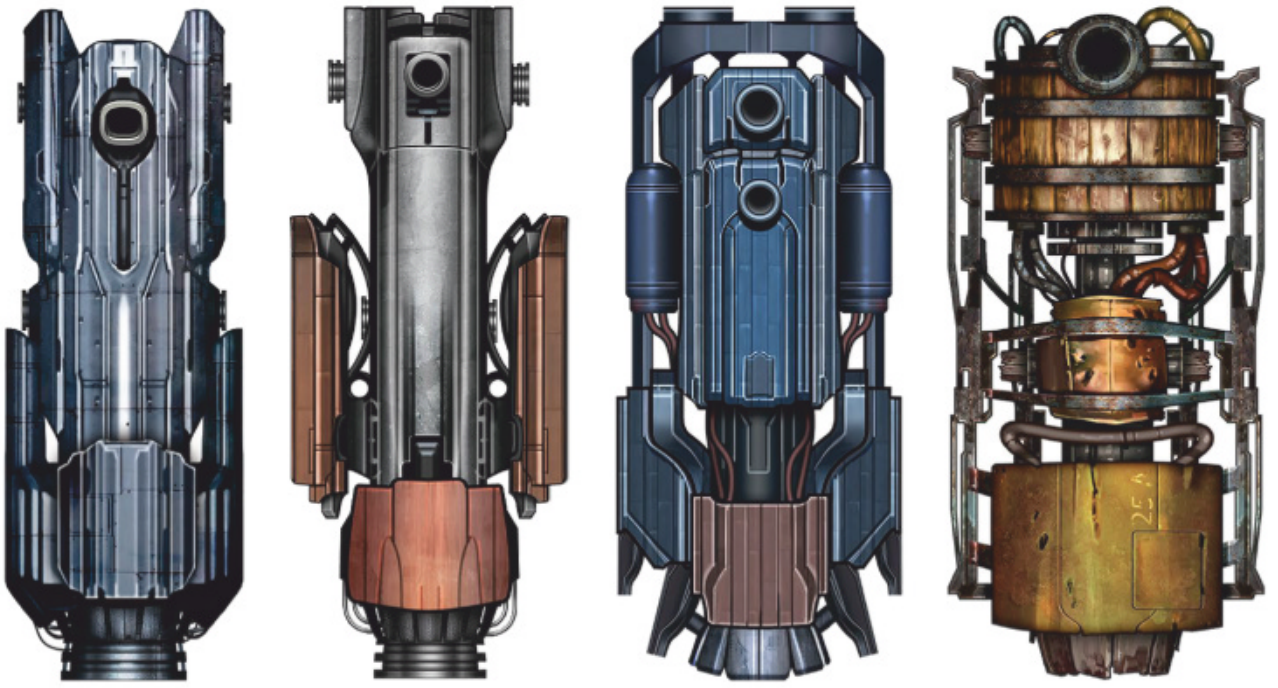
"I think we probably have more of an editing process than many studios twice our size or even five times our size," Arendt adds, and it's not just Failbetter that has benefitted. In 2017, Wood was recognised as one of BAFTA's Breakthrough Brits, an acknowledgement for which she credits her employer's support. "It's the kind of thing that boosts your career and profile and means people are more likely to poach you, but they had no qualms about it. It was just really reassuring and lovely to know that people actually give that much of a shit about your work."

While Failbetter may put *Fallen London*'s inhabitants through a variety of horrible hardships, it's clear the studio cares deeply about its staff, adopting a vehemently anti-crunch policy. "The nearest thing I think we've got to a mission statement is that we try and treat people like grown-ups," Arendt says – and that's true of its players, too. "We like to leave a gap where you can insert your own interpretation," Wood says. "It's not that we're not telling you the story. It's a deliberate creative space we've built for you to exist in." And should that happen to lead to the kind of spiralling catastrophe of which the developer is so fond? "Well, then you can revel in this utter shitshow trash fire you've managed to engineer for yourself," Gardiner laughs. ■

1 The crowdfunding drive for *Sunless Skies* was a measure of the studio's progress in recent years: it raised almost four times the total of its predecessor on Kickstarter.
2 *Sunless Sea* prompted some memorable player anecdotes, including one captain who responded to a mutiny by conducting a ten-hour campaign of revenge against his crew.
3 If you've never played a Failbetter title, it's well worth getting a taste of what the developer can do with *Fallen London*, which can be played for free in your web browser.







PLAY

REVIEWS. PERSPECTIVES. INTERVIEWS. AND SOME NUMBERS

STILL PLAYING

Puzzle & Dragons iOS
Part of us is worried about *PAD*. Developer Gungho has never been so generous, giving away over £50 worth of in-game currency in each of the last two months. Is the sun finally setting on one of the highest-grossing games in history? Or is this merely what it takes for an eight-year-old game to stay relevant? Best not to think about it, and enjoy the good times while they last.

New Super Mario Bros U Deluxe Switch
Were we to rank the Mario games, the Wii U original would be somewhere near the bottom of the list. Yet on Switch it extends a helping hand to frustrated parents. Toadette's regal transformation offers a one-time boost out of a fatal fall, while Nabbit, first playable in New Super Luigi U, can now stop on a dime, even on icy surfaces. If nothing else, we're not swearing so much this time around.

Chuchel iOS
It turns out the well-intentioned fuzzball does, in fact, look a lot like an old racial stereotype. (Heaven knows how we, an all-white editorial team, missed this.) Happily, our friends at Amanita Design have moved speedily to alter his appearance. We're pleased to report that *Chuchel*'s new orange hero makes no difference to its comic brilliance – it's almost like the jokes were nothing to do with colour in the first place.

Explore the iPad edition of Edge for extra Play content

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Field of view

Sometimes, you just need to look at things a little differently. True innovation is hard to come by in videogames, but often, if you squint a bit, you can at least detect the outline of it. Sure, it's the buttons we press and the keys we tap that most define the way we interact with a game. But the camera can be every bit as important, as this month's Play crop proves.

Five-and-a-half years after its announcement, *Below* (p104) finally arrives this month, and on paper it sounds like any number of punishing survival-exploration games that have released during its protracted development. Yet Capy's latest feels markedly different thanks to its tilt-shift presentation and the fact that the camera sits so high in the sky. Announced as an Xbox game, it's available on PC too, and is a very different game depending on the distance you play it from. On the sofa, you're in thrall to the scale of the thing; at your desk, it's a game to be peered into, pored over and picked apart.



Elsewhere, *Travis Strikes Again: No More Heroes* (p114) pulls a similar trick. While screenshots and trailers might suggest this is a very different game to Travis Touchdown's two Wii-era action games, the reality is rather different. Yes, our hero has been sucked into a mythical unreleased console, and must fight his way through a series of different game styles. Yet the core of the game is the same hack-and-slash energy-sword combat as before. It's just that now you view it from the side, or above, the camera zoomed in tight or pulled up to cloud level.

This is not to say that these games use camera tricks to mask their lack of ambition; merely that perspective can make more difference than you might think. And in *Ace Combat 7*'s (p112) case, it might even turn your stomach – indeed, its VR mode may have you pining for simpler times.

Below

Developer/publisher Capybara Games
Format PC, Xbox One (tested)
Release Out now

An often magnificent, and frequently maddening, dungeon-crawler from one of Canada's finest studios, *Below* isn't your average hero's journey. It's hard to think of your characters as heroic, after all, when they arrive in an endless supply, each bounding into the stormlit surf next to the wreckage of their predecessor's boat. Rather, *Below* is the journey of a shape, a diamond design that runs through the game's sunken island labyrinth like an artery, repeating itself as though trying to get at its own meaning. You first notice the design glowing on your shield, helping you locate your character against brooding landscapes that are viewed from a punishing remove. There's another one pegged out by obelisks in the long grass at the centre of the island's surface – and at that diamond's centre, a strange lantern with the diamond engraved upon it.

The lantern's radiance can be narrowed to a beam to open certain doors, providing you keep it fuelled with smaller gems hacked from the creatures that haunt the labyrinth's upper levels. It also gives away the locations of spike traps, *Below*'s most aggravating feature, drawing a neon-red diamond around them. The diamonds only multiply as you descend, from diamond-shaped lakes to diamond-shaped elevator platforms, some gleaming beneath rubble, others smeared with gore and nibbled at by torchlight. They infest the game's non-diegetic elements, too: you'll spy them among your inventory icons and in the slowly unfurling traceries of each floor map. *Below* is obsessed with the four-cornered shape and its implications, and it's not long before that obsession becomes your own.

The diamond motif fascinates partly because it awakens memories of mystic artefacts in other games, most obviously the Triforce of *The Legend Of Zelda* and Capybara's own Trigon Trifecta from *Superbrothers: Sword & Sworcery EP* – a game that, like *Below*, is half in love with *The Legend Of Zelda* and half a corruption of it. The diamonds also lift the occasional monotony of the setting, slicing across a world of gloomy verticals and spiralling, procedurally generated layouts: it's as though the designers had twisted blocks of masonry by 45 degrees to lock everything in place. But above all, the diamond draws the eye simply because it suggests the existence of designers in the first place. *Below*'s wholly unspoken tale is one of the oldest tales of all, within games and without: the pursuit of a pattern. It is about willingly setting foot in an enormous trap, because traps imply intent and intent must be investigated, whatever the price.

The repetition of the diamond reflects the repetitions *Below* expects of its player. While devoid, at least, of the levelling systems that make untimely deaths so painful in many Roguelikes, it is still a game of patience and bruising reversals. Its nastiest shocks to begin with are the hunger and thirst gauges at the top-left: these drain in moments and ensure that you'll spend as much time hunting for edible tubers and rock pools as battling the things that lurk in the dark. The combat is less daunting, like 2D *Zelda* with a little of the heft and crush of *Dark Souls*. Each character begins with a shield sturdy enough to absorb a few hits and bash through defences, plus a fiddly bow that can be equipped with various arrow types. Many attacks cause bleeding, but you can cancel some or all of the damage with a bandage or, in a grim flourish, by cauterising your injuries at a fire.

Below's wholly unspoken tale is one of the oldest tales of all: the pursuit of a pattern

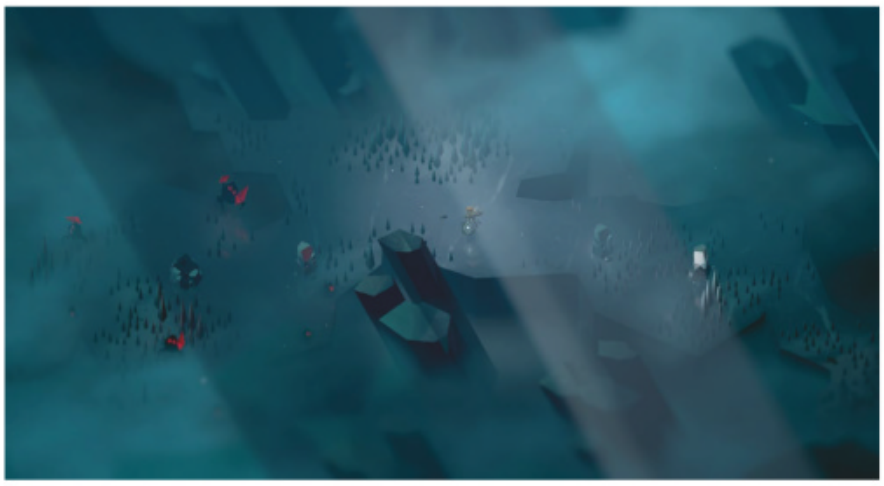


The labyrinth is divided into zones, each containing a set number of floors with distinct threats, terrain variables and resources. Die and you'll drop everything in your inventory alongside your corpse, including the lantern that unlocks the way to new zones. You can recover your haul on your next run, but in the meantime, the labyrinth will shift and repopulate. These setbacks are more frustrating for the fact that *Below* doesn't offer much scope for lateral exploration and letting off steam: there's a reasonable amount to discover in each zone, but the way is always down.

The game does, however, offer plenty of shortcuts between floors, together with cooking fires you can turn into single-use teleporters, and while you'll always be grinding for food and crafting materials, at least you don't have to worry about enhancing your gear. There are more specialised weapons to find, many of which double as keys to side chambers, and items you can equip to improve your odds, but this is nonetheless a game in which your starting equipment should carry you all the way to the finish. If a particular weapon takes your fancy, you can (eventually) store it for a subsequent run in a quasi-Platonic alternate dimension accessed by sleeping at campfires. Affectionately known as the "pocket" by *Below*'s community, this area is the nearest *Below* strays to the crazed meta-media storytelling of *Sword & Sworcery*.

All this may sound dry when pieced apart on paper, especially in light of Capybara's prior work. The developer has a knack for a deranged premise, and seldom displays much patience for convention: consider the "singleplayer co-op" of *Super Time Force*, in which you override the parameters of a scrolling shooter by fighting alongside your previous selves. By contrast, *Below* is a well-wrought genre piece, content to work within strokes familiar from *Souls* and *Zelda*. That's to overlook, however, its transformative aesthetic, which can't be stripped from any consideration of the combat, survival or terrain variables it shares with other games.

Below's art direction can seem perfectly perverse. It asks you to watch your step, yet dangles the camera high above your character, so you are dwarfed by environments that, even at their friendliest, always feel ▶



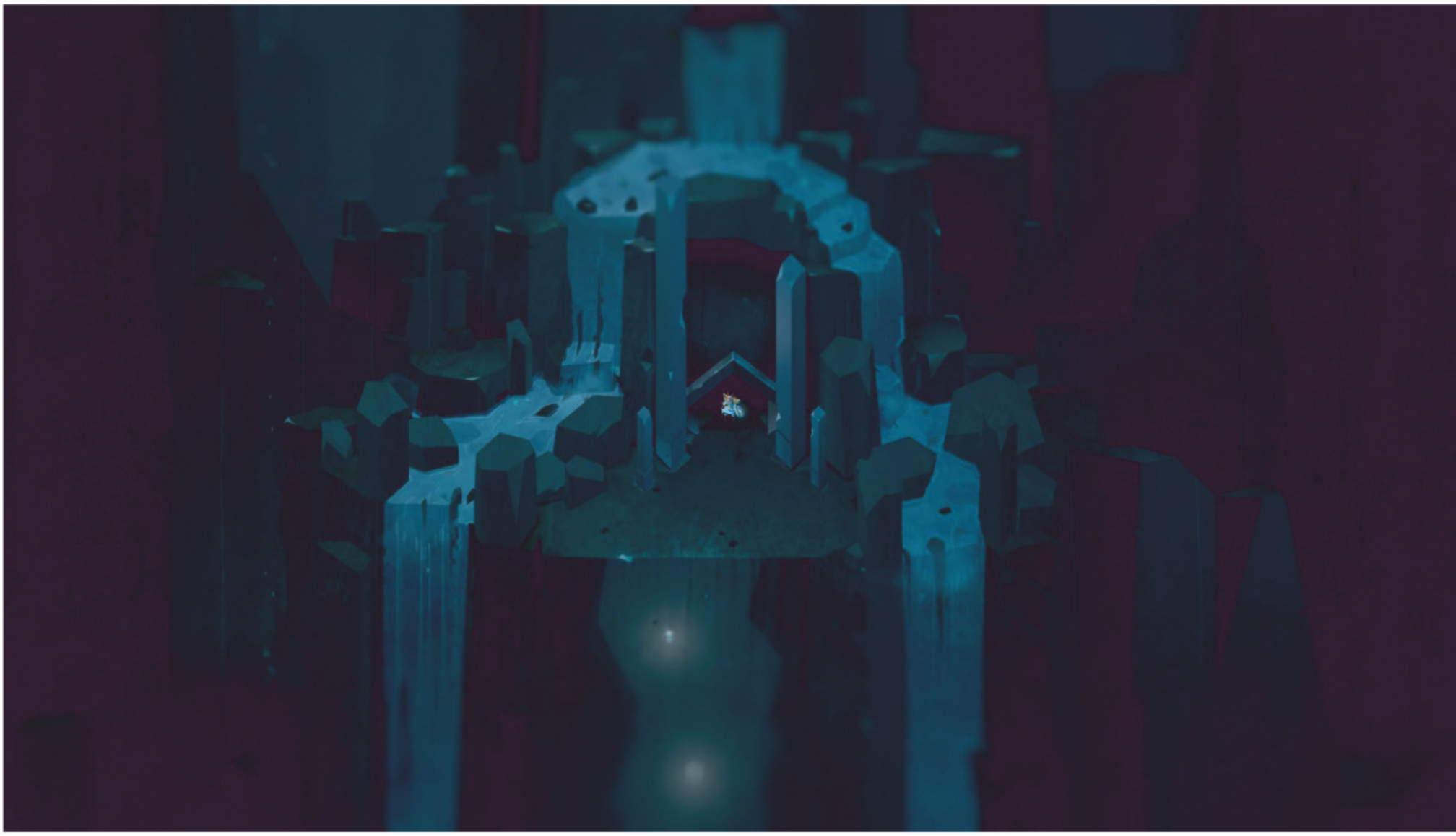


ABOVE Light is always your ally in this blurry underground maze, but never more so than towards the bottom of the labyrinth, when the darkness begins to play a more active part in your extermination



TOP Cold is the least consequential of the game's survival variables and thus, dangerously easy to forget about. Certain recipes, thankfully, heat your insides as well as filling your stomach.
MAIN There's no stamina bar for you to worry about, but your shield arm can only withstand so many blows at once. Excessive dodging, meanwhile, is a great way to stumble on traps.
RIGHT Item drops and the contents of treasure chests are largely random, but some always appear in the same place, and each zone always has a certain quantity of resources within it





like they're about to swallow you whole. Using a technique inspired by tilt-shift photography, it also leaves only the immediate vicinity in focus – anything further afield, be it a hooded figure or the sparkle of a dropped item, becomes a queasy blur. Dungeon layouts are subject, moreover, to different kinds of fog of war, from an icy glamour that whites out the path behind you to the alien darkness that descends around the mid-section of the labyrinth.

All of which is obviously an incentive to take your time. You'll want to linger because the environments are so mesmerising, at once monolithic and enlivened by details like the crunch of brittle stalagmites underfoot, or the fitful glimmer of water in a crevice. Most zones are linked by grand, hand-arranged chambers, and some of these zones make a point of slowing you down – asking you to spend minutes scaling rock faces, or tacking back and forth across scenes that call to mind the industrial immensities of Playdead's *Inside*.

The suggestion is that your rhythms as an adventurer come second to the rhythms of the geography. And yet, the game's survival mechanics also want you to rush. This has been presented as outright self-contradictory in certain quarters, and it's certainly frustrating to begin with. But the more confident you grow in your managing of the game's pressures, the more able you are to enjoy the setting. And part of that enjoyment derives from the realisation that *Below*'s aesthetic only *seems* impenetrable: in reality, the game is constantly telling you things about the world and your odds of survival within it.

The game's procedural generation elements aren't as enjoyable to master as those of, say, *Spelunky*, because there simply aren't as many variables per layout and they have more limited knock-on effects. What possibilities there are, however, are engagingly secreted amongst the tics and tells of the visual and audio design. Areas that initially appear barren slowly reveal themselves to be hunting grounds as you become familiar with the calls of creatures you can prey upon. You also learn to watch out for the distinctive noises enemies make – a furtive whispering, leaden footfalls or a steady background reverberation, as though the cavern were an enormous lung.

There are AI hierarchies and quirks to take advantage of: the insectile wraiths you'll meet early on, for example, are more aggressive in swarms or the presence of larger creatures. Therefore, if you can only see one but it's coming right at you, there are definitely others waiting in the mist. And this is just the crust: further down there are zones in which the architecture changes shape, terrain hazards that actively seek you out, and creatures that trouble *Below*'s status as a fantasy game.

The trick is to get over that initial hump, when the survival elements are mere annoyances and each layout is about as forthcoming as a sheet of rain. For many, including fans of Capybara's less sombre creations, the rewards later on won't be worth the pain of struggling through the beginning. For others, these pleasures will be all the greater for being harder won. If *Below* is a game about the single-minded pursuit of a shape, about making your descent at all costs, it is also a test of your ability to find time for appreciation or understanding along the way.

8



***Below*'s environments often seem like flat paintings at first glance, jutting spars and stark cliff faces scraped across a midnight-blue canvas, but strike a light and you'll realise you're actually looking at 3D geometry**

DEEP LISTENING

Below's score is the work of Jim Guthrie, otherwise known for *Sword & Sworcery* and Indie Game: The Movie. Craftily entwined with each floor's ambient audio – elements of the game were apparently designed in response to certain tracks – his compositions combine guitars with synthesisers to create a slow, otherworldly wash of sound. Guthrie's style skews lo-fi: one of his instruments is an ancient sampler that uses floppy disks. There's no battle theme, and no "songs" as such: where *Sword & Sworcery* was as much a pop album as a game, here the music forms part of a marathon in which players will hear the same tracks over and over.

Post Script

Nathan Vella, co-founder and president, Capybara Games

Below was announced at E3 2013 during Microsoft's press conference, with Phil Spencer sporting a Capy-branded T-shirt for the occasion. It's been a long and bumpy road from there to the game's eventual release, with the studio openly admitting its struggles. Here, Capy president Nathan Vella reflects on how the studio found the soul of its deepest, most richly systemic game to date.

Why did you decide to add thirst and hunger mechanics to *Below*?
Everything in the game was meant to be a pretty distilled version of itself, a distilled version of a Roguelike – and I'm air-quoting because it's not *literally* a Roguelike, and people will slaughter me if I say that it is – but a distilled version of survival, a distilled version of UI, tutorials, story. Everything kind of filtered down so we could focus on clarity, tone, atmosphere, on being hard but fair. The survival elements were always meant as primary or secondary motivation to get you doing something or to drive you out of not doing anything good. Hunger, thirst and, to a lesser extent, cold were always these pieces that, if we could distill them enough – make them manageable – might drive you towards breaking off a known path, going back to the room you were in to try another door, as opposed to just moving in one direction. You would look around your screen and think about what you see outside of enemies.

The visual aesthetic is marvellous, if frustrating. How did it come together?
That's a very touchy subject, because as much as you see in the game there's probably that much [again] on the cutting-room floor. It was a Herculean effort by a very small art team and one graphics programmer, with a few other programmers helping out. Some of it worked very well very quickly – the tilt-shift effect was in our creative director's initial pitch. But for example, the game becoming darker, being about light and shadow, being accentuated by half-shadows, giving the player a light source that casts long, dense shadows – that all came in much later after we decided to shift the majority of the game from 2D to 3D. So it was a very long process. Some of it we knew from the beginning and it was about homing in, and other parts, like what the shapes of rooms feel like, how we make procedural generation feel artist-driven instead of programmer-driven, came later.

The sense of scale drives how small you feel in the world. How did you arrive at the correct balance?
We knew people were going to say, 'Oh, this character is really small'. In reality the character is not that much smaller than in tonnes of other games. It's just the impression of scale, and the lack of really simple UI rules that videogames have followed for a long time with small characters – we just kind of didn't do those. It's single-screen rooms, so the camera is not tied directly to your character, which makes everything feel different. We had to play around with how we lit the game, putting lights on the character, the degree of post-processing that goes on. If you turn off post-processing in the game, it's just an unbelievably different vision – the colours, the depth, the scale just changes so drastically. And almost all of that work was done by programmers to approximate how our artists wanted it to look in their concepts and vision pieces.



"As much as you see in the game there's probably that much [again] on the cutting room floor"



Your games often riff on *Zelda*. What does that series mean to you, as a studio?
I think there are a couple of different angles to that. There's the process that series has gone through – some of the things we find most interesting about *Zelda* are from the original NES game. That just complete lack of knowing what the hell to do, where to go, and the joy when we discovered that if you push this tombstone, or you go down this staircase – those places where the game, either due to restriction or by design, wasn't telling you what to do. That was always a big discussion point for us. But then moving forward there was a core group of us who adored *Wind Waker*, loved the combat in *Wind Waker* – it's fast but you can decide not to play it fast, you can be guarded and methodical. That was inspirational in a weird way, though you perhaps can't really see it in *Below*. And then all the way through to *Breath Of The Wild*, when they focused on cooking, and we were like, 'Ah man, we're doing cooking too', but then at the same time, '*Zelda*'s cooking, we're cooking, let's get more cooking in videogames'.

I think in general *Zelda*'s evolution is so interesting, and there are pieces of each game that are either foundational for us as a studio, or foundational for games as a whole. In general, I think if you were to ask developers, 'Oh, did *Zelda* have an influence on you?' – anyone who says no is lying. It's the backbone of so many concepts and systems, things that everybody just *does*. I think some of the people who dislike the game probably dislike *Below* because it's not enough like more recent *Zelda*s. It is inspired by Roguelikes, it is a survival game, it is very challenging in ways *Zelda* has never been. I think some people have that vision, they see top-down dungeon-crawling stuff, and they think '*Zelda*' and it's impossible to get away from that. ■

Vane

Developer/publisher Friend & Foe
Format PS4
Release Out now

Though it would be hyperbole to say that every frame of *Vane* is like a painting, it *is* a sight to behold. There are moments where the camera aligns just so, and you might as well be looking at a piece of hand-painted concept art, miraculously transposed into a three-dimensional world. Alas, the spell is soon broken. Even if you were blissfully unaware of its troubled development, within half an hour of play, you can't help but notice that something isn't right. The knowledge that its creative lead, Team Ico alumnus Rui Guerreiro, departed six months after its debut teaser drew favourable comparisons with his former colleagues' work partly explains why it often lacks direction. And though it's hard not to feel for the remainder of his team who were left to pick up the pieces, the result is a salvage job from a studio that appears to have run out of time or money. Perhaps both.

It starts so promisingly, too, a lively prologue putting you in the shoes of a child buffeted by a fierce storm. What follows is like an abstract take on an *Uncharted* set-piece, the fractured environment seemingly on the verge of tearing itself apart completely at any given moment. Sweeping synth washes and electronic squalls (the soundtrack is generally excellent throughout, if prone to repetition for reasons outside the composer's control) only add to the unsettling atmosphere, though it's not long before you're spirited to a sparse desert landscape that stretches far and wide. Now you're a bird, perched on a branch and ready to take flight.

Once you lift off, there's nothing to immediately draw the eye, bar the occasional glint in the distance tempting you to investigate. And then? Well, there's the rub. *Vane* is built around the kind of secrets that are easily spoiled by the careless critic: suffice to say, each of the four main areas of the game following that tempestuous opening amounts to a giant environmental puzzle, where the *what* is as important as the *how*. Your goal, in other words, is unknown, and figuring out where you're headed is the first thing to ponder before you consider the route you need to take to get there.

And yet intrigue only carries *Vane* so far. It has been a long time since we encountered a thirdperson camera this wretched; likewise since a player-character felt so awkward to control. Any hopes that we could enjoy soaring through those cloudless desert skies are dispelled within moments of lifting off. Jittery isn't the word: at times you'll feel as if you're flying with two broken wings, the gentlest of analogue stick nudges causing the bird to jerk awkwardly. If anything, it's even worse when it's time to land. There are certain spots at which you can perch, but touching down is a lottery. You'll slow down, the bird hovering for a moment rather than resting its feet, before you wrench the camera around for another pass, flapping desperately to little discernible effect until the game deems you close enough to transition into the landing animation.

> Working out what on Earth you're even supposed to be looking for is the first part of the process



SHAKY GROUND
There's a germ of a good idea in the third act, where the large open environments potentially give you the option to scout around as the bird, before transforming back to explore on foot. The awful controls and camera make it rather less appealing, and there's no compelling reason to do so anyway. It's here that the child's sluggish walk becomes tiresome, and their connection to the world feels ever more tenuous, with limbs passing through scenery, and not only while climbing. During one trek, we take great care in negotiating a platform with large holes before discovering they can simply be walked over as if they don't exist, only to clip through a piece of solid floor on the other side.

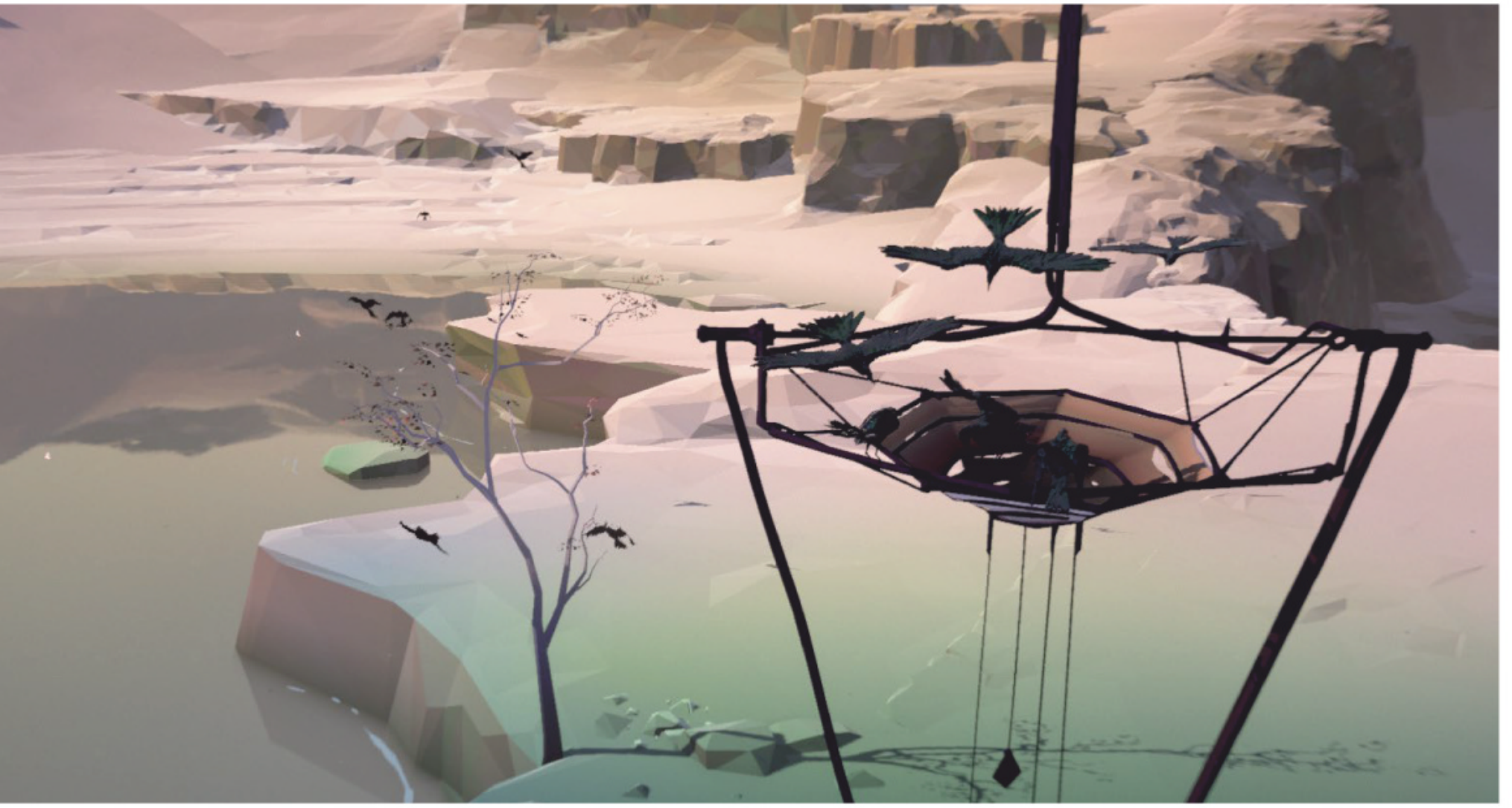
When you return to human form, you'll find the child as clumsy to control as the bird, a feeble jump and awkward movement making routine traversal into a fraught, frustrating task. It's hardly helped by confusing and inconsistent visual design, some poor lighting and a camera that leaves you attempting to peer through solid walls to see yourself. Changing back into bird form is thrilling the first time: after a heart-stopping leap of faith, your apparently fatal plunge is suddenly arrested by a mid-air transformation. Yet it's more likely to happen by accident than design, leaving you in a literal flap to get back to where you were.

There are flashes of ingenuity in the construction of *Vane*'s puzzles, though in practice they're more drawn-out than particularly elaborate. Any moments of aesthetic delight are dashed by the long-winded process of solving them. Working out what on Earth you're even supposed to be looking for is the first part of the process, though a patch issued mid-review makes things marginally less opaque. Still, you'll have your answer to the puzzle reasonably quickly, after which it's usually a matter of scouring the surrounding area for the required pieces. There are ideas that could certainly bear further elaboration, but they're never developed: new mechanics are introduced and promptly dropped before you move onto the next area.

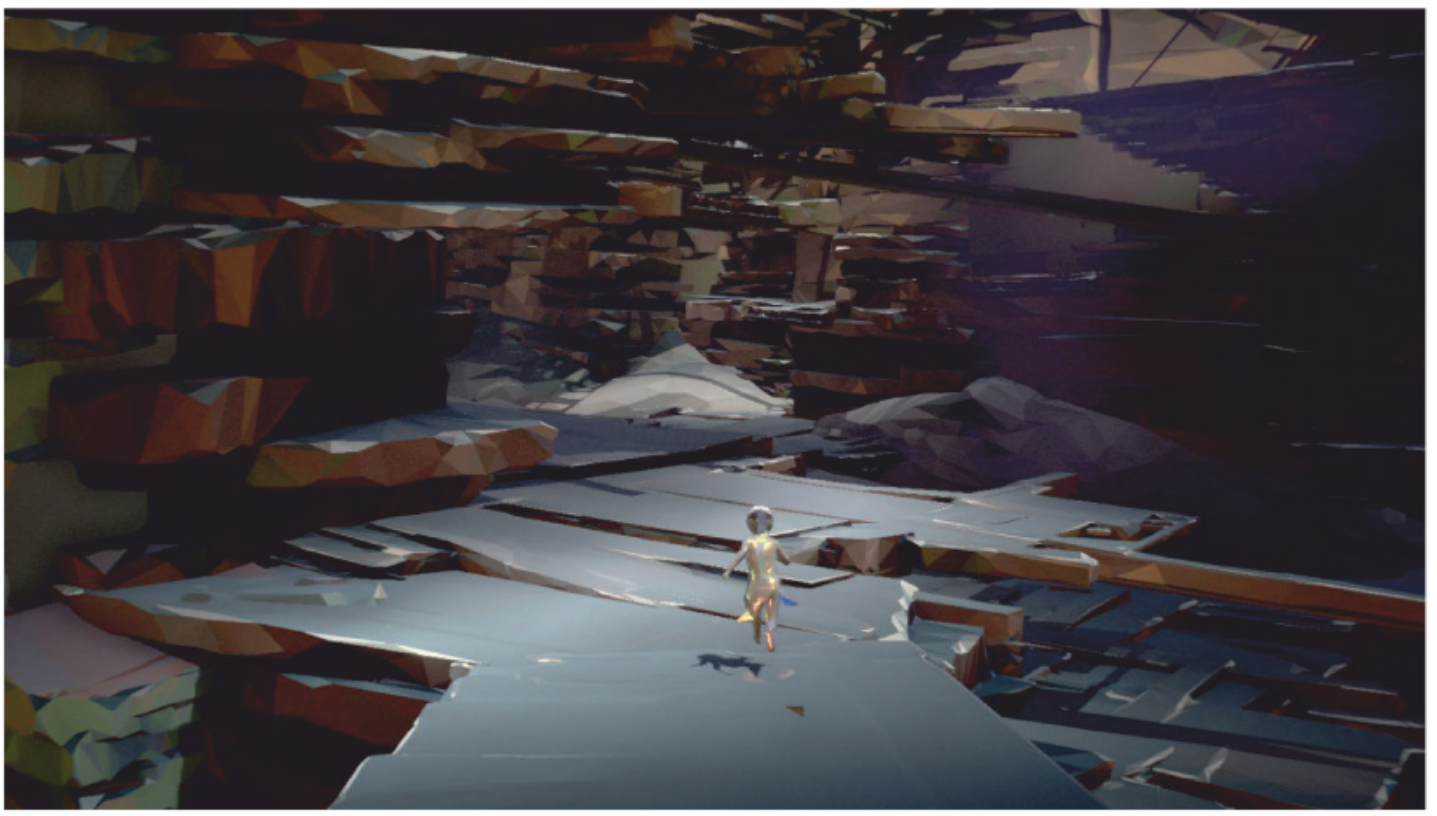
Assuming you *can* move on, that is. At one stage, our bird inexplicably finds itself glued to the floor, causing ten minutes of lost progress. Later, we team up with some fellow bird-children to push around a giant orb, only to find them losing interest – not that we can really blame them. The first time, two of them wander off for no obvious reason; then they all stand idle, refusing to help despite our desperate cries. After our third attempt – each restart setting us back a good 20 minutes, since there are no checkpoints once you've entered a new area, and the pushing speed is punishingly slow – we make it a little further, but this time it's our avatar that won't play ball, freezing with arms outstretched as the others roll on. We wouldn't have minded so much had the payoff to this seemingly Sisyphean task been worth the effort. It is not.

Glimpses of what might have been are few, and brief at that. The second main area's puzzle could grace a Team Ico game, while the environmental transformations of the third are accompanied by an imaginative stop-motion effect – albeit one that, thanks to the frequent framerate problems, we initially put down to another technical flaw. But our sympathies for a developer clearly struggling through trying circumstances only go so far. *Vane* is unfinished, its few good ideas undermined by its shoddy foundations. If it really were a painting, you'd get Banksy to frame it.

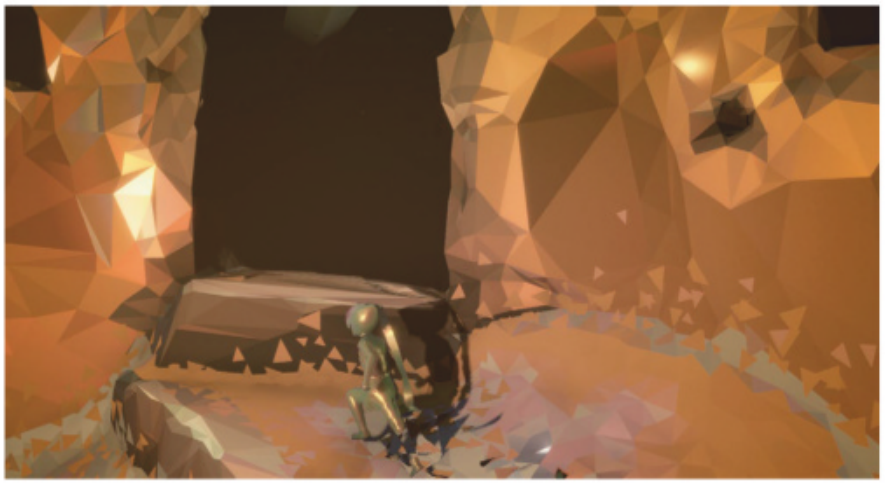
3



ABOVE Other birds seem more comfortable hovering around trees than touching down, but they've probably seen you struggling to land. The idea of gathering a flock to solve some puzzles isn't a bad one, but it's soon cast aside.
RIGHT The child's pitiful jump is rarely required. Rock formations that, from a distance, look like engaging platforming challenges turn out to be mere set dressing. In some cases you'll hit an invisible barrier before you reach them



BELOW Shimmering triangles accompany transformations – just one of many effects you'll wish had been dialled back given their negative impact on performance





ABOVE These tall, imposing figures block your path on more than one occasion. Their role becomes more important during an ending sequence that fails to lend emotional weight to *Vane*'s underdeveloped story



In this puzzle your objective is clearly communicated through visuals alone. The red circle has never felt so unnecessary

Post Script

How Vane illustrates the perils of giving players too much rope (contains spoilers)

These days, it's not uncommon to receive an email from a PR while reviewing a game, informing us of a newly released patch – at which point we cross our fingers that it's only going to wipe out bugs rather than our current progress. But it was a surprise to see one for *Vane* accompanied by a guide put together by the developer. Had we not already been an hour or so into the game, alarm bells would have started ringing. This was, after all, a game we'd been told should take between three and five hours to finish. Ultimately, we only referred to it once, when we were unsure whether we'd gone wrong or the game had – and sure enough, it turned out the problem was *Vane*'s. But as we continued playing, it became increasingly clear why the PR felt a guide was necessary.

Vane is the latest example of a prevailing trend in games. In response to the tutorial-heavy approach of many modern blockbusters, today's developers seem to have collectively decided that players don't need their hands held quite so tightly. Big-budget games are increasingly letting players turn off HUDs and minimaps, encouraging us to use our initiative and natural curiosity to find our next objective. Some indies have taken it further: consider Capy's *Below*, and its bullish insistence on giving almost nothing away.

Friend & Foe favours the latter approach – up to a point, at least. *Vane* doesn't have a HUD, or text of any kind. There's no tutorial whatsoever. You're simply dropped into the world and invited to figure things out for yourself. The controls are relegated to the pause menu and never explained. In theory it's a good idea: you explore, experiment and discover by doing.

This kind of approach works so long as the player has an overarching goal, or else something to naturally draw the eye. Think of *Journey*, where your ultimate destination is often in sight, and where its camera darts around a new environment to suggest an exit or possible route forward. Or *The Last Guardian*'s elegant puzzles, which despite your inelegant assistant, establish a clear visual language so progress feels organic without the player being spoon-fed solutions.

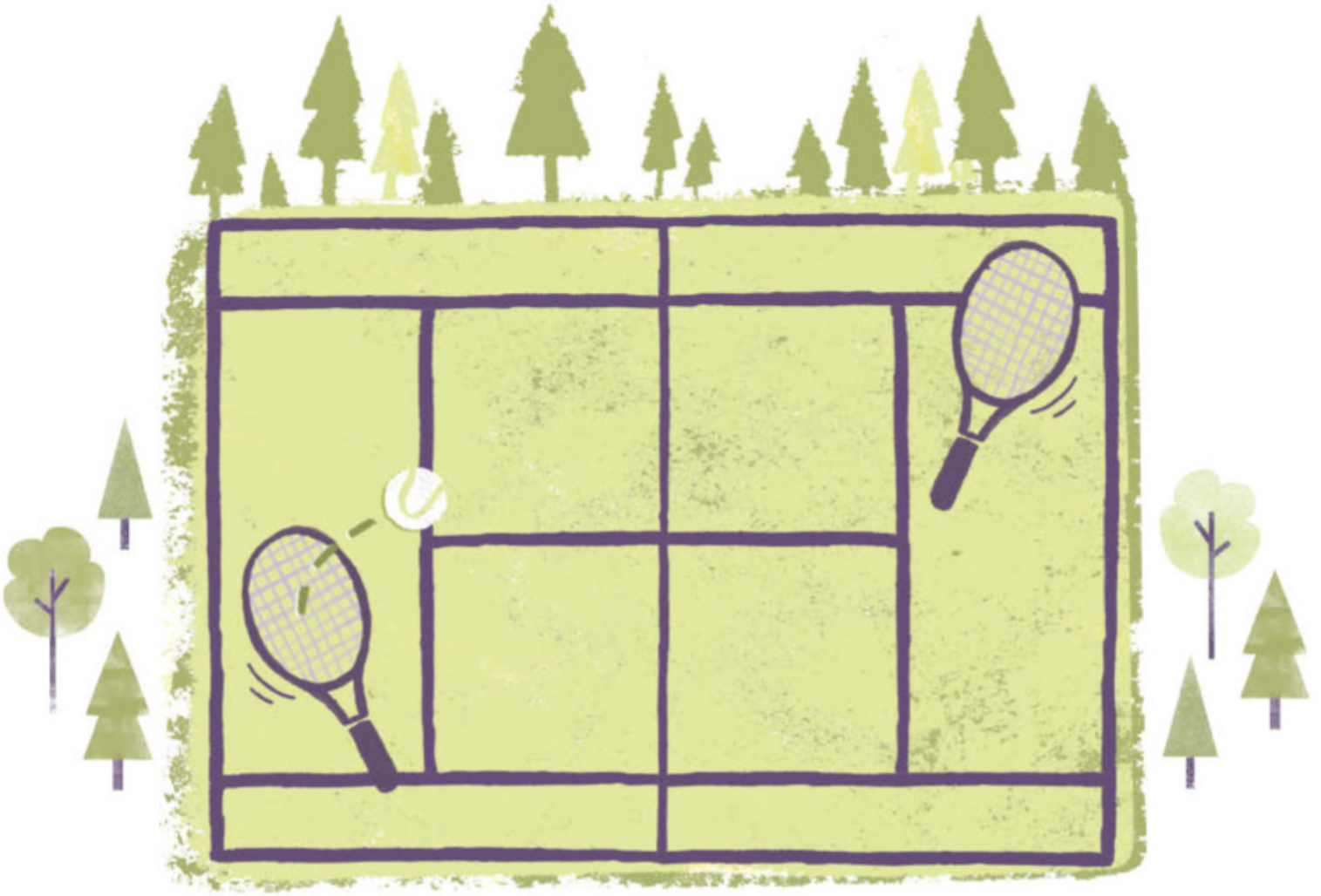
If *Vane*'s inspirations are obvious, they do have a positive influence in places. The first area has a focal point in the form of a large windmill. When you're not wrestling with the camera, you'll spot small groups of birds in the distance, gathering around windsocks that must be dislodged so they can flock toward the main structure. Eventually, you have enough to weigh down the vanes to dislodge an orb, which triggers your transformation. In the next area, there's a variant on a similar theme, with the birds weighing down another mechanism: a logical progression.

Yet its approach is inconsistent. Occasionally, it offers the worst kind of help: a button prompt when it's not required. In a room with three obvious levers, we don't need to be told that pressing circle will let us pull them. By contrast, in the third area, you're left to push a glowing ball slowly around with no apparent goal. When rolling it into position to transform nearby scenery into steps and a bridge, there's no suggestion you don't have the tools for the job. It's only after spending a while scouring the environment that you'll find more groups of children sitting near smaller, dormant orbs. And there's simply no precedent for what follows: that calling them to join the throng will increase the range of the larger orb's transformative powers.

The best games don't need to explicitly tell us where to go or what to do because their worlds are designed to subconsciously guide us, however much we push against the edges. As long as that's true, we're happy for developers to continue removing the training wheels. But *Vane* should serve as a warning that there can be such a thing as too much freedom – and that a hurriedly emailed walkthrough is hardly the ideal solution. ■

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TWO SIDES

Ace Combat 7: Skies Unknown

Developer Bandai Namco Studios
Publisher Bandai Namco Entertainment
Format PC, PS4 (tested), Xbox One
Release Out now

After every sortie in *Ace Combat 7*, you're immediately given the opportunity to watch the whole thing again. These replays automatically switch between a variety of camera angles, and at a passing glance could occasionally be mistaken for real flight footage: a testament to the game's outstanding presentation, from its lovingly rendered plane models to the way sunlight glints off the cockpit glass. The only giveaway is your aircraft's twitchy movement. Every nudge of the stick is all too apparent as the camera jerks awkwardly to keep you in shot. If the series is designed to fulfil the fantasy of being an ace of the skies, these moments are a reminder that you're just an amateur.

They also sum up the tension at the heart of this series. How closely should a game seek to replicate the experience of flying a jet fighter? How hard should it be to target, pursue and take down airborne opponents? *Ace Combat* has always found itself somewhere between the immediate thrill of an arcade game and the more cerebral pleasures of a simulation. It offers new players more intuitive controls that let you turn with the left stick, while an advanced option for more experienced pilots invites you to master the use of pitch and roll instead. *Skies Unknown*'s missions feel better-tuned to the latter: this way, you can bank and twist more sharply to more effectively track elusive rivals, and to dodge incoming missiles without resorting to wild climbs and plunging dives when you've run out of chaff flares. The regular setting is more immediate, but you'll regularly find yourself outmanoeuvred by nimbler opponents.

You can switch between the two at any time, though *Skies Unknown* makes no real attempt to show newcomers the ropes: the first mission runs through the various inputs without offering the slightest suggestion about best practice. The difficulty cannot be changed once you've started the campaign, which would be less of a problem were the challenge not so erratic. Missions begin with a single goal, but that often changes – though the unexpected arrival of a new wave of enemies isn't quite so unexpected the fifth time it happens. There's usually a pause for a checkpoint, whether a fresh threat is introduced by cutscene or a radio warning. This normally comes as a relief, since it means you no longer have to start again when you die – in fact, some missions feel as if you're designed to fail them first time around, not least when you're carrying fewer missiles than there are targets, with no way of restocking. While your final two standard missiles will regenerate, at times your only option is to die and restart from the most recent checkpoint. Though on occasion that option equates to a restart: even when there's an obvious break, you might be forced not just to begin again, but to sit through the same preamble. All of which discourages you from taking the kind of risks a real ace would.

> Somewhere between the immediate thrill of an arcade game and the more cerebral pleasures of a simulation



QUEASY MODE
Skies Unknown's VR component is slight, spectacular and hard to stomach. It limits you to the firstperson cockpit view and Expert controls, and while it's hard to gauge whether the difficulty has been tweaked from the campaign – the pace certainly seems a shade slower – it's definitely easier to track enemy flight paths during dogfights. Yet being able to look around independently while shifting your plane's orientation with the sticks and bumpers, liberating though it may be, comes at a cost: there are no comfort settings, and though missions are slightly shorter than the campaign's, 15 minutes will be enough for all but the strongest constitutions. If you've got your VR legs, it's a terrific bonus, but it might be wise to keep a bucket handy.

If and when you're feel outgunned, you can replay missions or head online to earn the points you need to unlock better planes, weapons and parts. Choosing between bombers, fighters and multi-purpose craft before each sortie introduces an element of light strategy, though it can feel unfair when a mission to destroy ground targets culminates in you battling an airborne threat with an unwieldy bomber. Otherwise, it's a little more open-ended on how you get the job done – up to a point. Missions still force you to prioritise obvious threats, and while others might give you additional targets, you'll focus on the high-value ones when time is tight. Which it tends to be.

Still, given for the most part you're either shooting down targets on the ground or the air, *Skies Unknown*'s missions are delightfully varied. You weave your way through narrow corridors of airspace between the enemy's radar coverage, or use cloud cover to avoid powerful AA guns, only peeking above it to blow up critical targets. You act as a decoy, disrupting the enemy until you're belatedly given permission to return fire. And later, you fly low to locate a missile silo, circling it to keep the target locked for an incoming bomb while under heavy fire. Sometimes a simple change of scenery freshens things up: your journey takes you from clear skies over lush fields to ravaged cities and storm-lashed excursions into narrow canyons, with lightning frazzling your radar so you're *really* flying blind.

At its best, *Skies Unknown* will have you gripping your controller more tightly than you have in a long time. So it's a pity when it resorts to pitting you against waves of unmanned drones, which feels less like you're outwitting a rival so much as swatting a swarm of angry wasps. At times their volume turns a minor irritant – the red flashes, blaring alarms and insistent warnings of approaching missiles – into a nagging cacophony, perhaps even obscuring key radio chatter. Not that the script is up to much. Its preposterous story is told with a straight face, which leads to several moments of accidental comedy: at one stage you're asked to "defend Stonehenge" before a request to "take out that Arsenal Bird". Even so, an early-game twist gives your player-character plausible motivation to prove themself, which in the face of barracking from superiors makes the 'mission accomplished' screen all the more satisfying. The cutscenes might be stultifyingly dull, but at least that means the most exciting stuff is happening while you're playing rather than watching.

Until it comes to those replays – well, sometimes. Though half the time they frame the action beautifully, tracking missiles as they streak towards the target, just as often you're denied your moment of glory by an untimely cut. That's *Skies Unknown* in a nutshell: its magic can feel frustratingly elusive, but the thrill of chasing it down just about makes it worthwhile.

6



LEFT When facing a large cluster of targets, you might need to cycle through a few until your computer locks onto the right one.
BELOW You can conserve missiles by picking your targets carefully: destroy a structure's core and it'll collapse, saving you the bother of downing the AA guns first.
MAIN Some missions are bookended by optional takeoff and landing sequences, while others ask you to refuel in midair. Since they're pretty easy and add to your score, they're worth doing



ABOVE For narrative reasons, it makes sense that your fellow pilots aren't much cop, at least in the first half of the game. Still, it can be annoying when time is tight and you seem to be doing the job single-handedly





Travis Strikes Again: No More Heroes

Developer Grasshopper Manufacture
Publisher Nintendo
Format Switch
Release Out now

Were games scored solely for style, Suda51 would be the most respected developer on the planet. Grasshopper's games are often pitched as 'punk', but *Travis Strikes Again*, like much of the developer's work, draws from many subcultures, and on paper sounds like a mess of contradictions. There is punk here, sure. But there is also grindhouse, supernatural horror and nerd culture, to name a few. It is testament to Suda's immaculate sense of style that his latest game just about gets away with it.

Indeed, the game has been built in such a way as to empower it. Series protagonist Travis Touchdown is seeking out the Death Balls, a collection of seven games for a mythical, unreleased and seemingly supernaturally powered console, Death Drive Mark II. His partner, Bad Man, believes his daughter is trapped inside; one of them must criss-cross the globe in search of the Death Balls, then bring them back to the console in their trailer-park home. They load them up and, since the console connects to the user's central nervous system, are transported inside them, either alone or in co-op.

Aesthetically, at least, it's finely handled. The Death Drive splash screen that runs before you load up a game is brilliant, a psychedelic, vaguely threatening spin on the classic Sega boot screen with some VHS tracking crackle thrown in for good measure. Each game has a bespoke attract video, main menu and narrative. And the lore surrounding it all is surprisingly deep, with a bookcase in Touchdown's trailer holding an archive of a fictional Death Drive magazine, full of appropriately '90s-style journalistic speculation of what the console, and its games, might contain.

If all that sounds like a recipe for some fourth-wall breaking, well, you don't know the half of it. Our hero does not break it so much as drop a nuke on it – something that's made clear from the minute you start the game up, when a caption explains that the game is "being developed using Unreal Engine 4, the noble and pedigreed middleware from Epic Games". Touchdown picks the ball up and runs with it, exchanging meta-chatter with bosses, referencing the real-world game industry ("I bet Devolver is gonna buy the rights and make a sequel," he muses after finishing one game) and constantly displaying his hardcore-gamer credentials. The game itself follows suit, invoking Suda's back catalogue and paying rather sweet homage to one of the biggest indie darlings around in one of the later levels. Not every joke lands, but a fine localisation – particularly in the visual-novel style sequences in which Travis seeks out the next Death Ball – ensures the hit rate is higher than you might think.

Suda has claimed that this has been one of the most difficult games he has made, since it is essentially seven games that need to be balanced individually. That's a bit of a stretch. While the aesthetic may change, and the camera repositioned – from isometric to top-down to high in the sky – each of the game's component parts marches to the same core rhythm. It's a familiar one, too, a simple, and dreary, hack-and-slash brawler using an energy sword whose battery must be frequently recharged. Suda may not think of this as a mainline *No More Heroes* game, but it certainly plays like one.

Does not break the fourth wall so much as drop a nuke on it – something that's made clear from the minute you start



AFTERNOON TEE
On first impression, money seems important: it's everywhere, with coins littering pathways and boxes of currency off the beaten track. In reality, the former is for pathfinding, the latter to reward exploration, and the cash itself almost entirely useless. The game's only purchasable items are a suite of T-shirts whose designs pay earnest tribute to modern-day indie-game classics. We spend most of the game in a black number bearing the *Papers, Please* logo, but just about every indie darling from the past decade is in there, allowing the latter-day indie connoisseur to wear their influences on their sleeve. Sadly, by game's end, your wardrobe only amplifies the gulf in quality between the game you are playing and the titles it purports to celebrate.

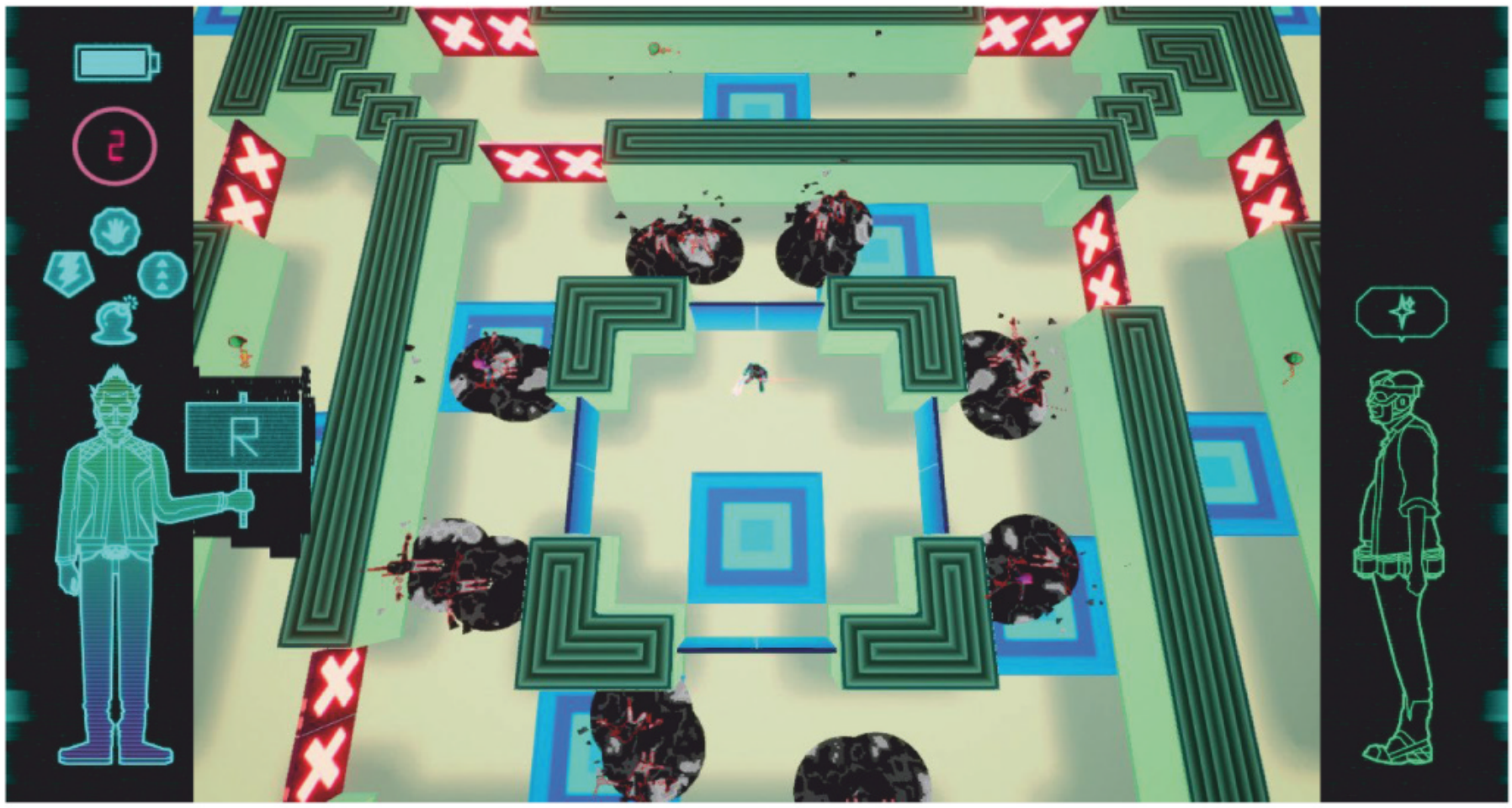
Early on, enemies are simply blade fodder, despatched with a few sword swipes. But they quickly grow in complexity and power. Those with shields must be disarmed with heavy attacks, or by baiting them into using their protection as a projectile. Some charge at you and explode; others might teleport, spit electrifying balls, or attack in long combo strings. Your core moveset is only so much use against these foes, but skills, tied to cooldowns, will tip the odds in your favour. These are found off the beaten track in levels or dropped by bosses, and up to four can be set at once. Some are more useful than others, and we quickly settle on a loadout that sees us through the entire game(s).

While combat underpins all the games, there are excursions into other genres. There's a drag-racer that's notionally about changing gears at the right time and knowing when to use your single nitro boost, but you're scripted to lose most races at least once so you can scurry through a combat maze in search of a gearbox upgrade. There's an *Asteroids*-style shooter, though you don't have to complete it, normal service resuming when you run out of lives. The real variety comes from what Suda and team build on top of those lightweight beat-'em-up foundations. You'll solve rotating maze puzzles while being chased by a disembodied head; if it touches you it's game over. You'll see the screen steadily obscured by a corruption that can be briefly dispelled by hitting switches. Mostly, though, you hit stuff.

Far too much stuff, really. Almost all of the games outstay their welcome, none of those little mechanical twists justifying the 90-odd minutes you'll spend exploring them. Fights are long, attritional and, since enemies spawn from the ether, you are never quite sure if the end is in sight. A miserly stock of lives, allied to a rather opaque saving system, mean that failure is often punished so severely that the best option is simply to start again from the beginning.

And for all Suda's talk about balance, there remain a few too many kinks in the system. The final level zooms the camera out so far, and fills the screen with so many enemies, that you simply can't identify the biggest threats. At one point we die after being corner-trapped and stunlocked by two powerful enemies we didn't see coming until it was too late. Suda has a punk attitude to making games, so at this point we decide to adopt a punk attitude to playing them. We put down the controller, and walk away.

5







ABOVE Golden Dragon GP is a rare example of a game mode you'd like to see more of. There are just a handful of races, sadly, and each is over in seconds. You'll spend most of its runtime slashing more goons in the face



MAIN This late stage is all about switches – used to open doors, clean up a corrupted screen, or teleport you to new areas.
ABOVE It may pay loving tribute to Unreal Engine, but doesn't exactly push it to its limits. Still, it's not without its attractive moments.
LEFT The UI not only helps to frame the action in a retro-appropriate aspect ratio; it's all vital info, though a full-body health bar is perhaps a little excessive

Book Of Demons

Developer/publisher Thing Trunk
Format PC (tested), Xbox One
Release Out now (PC), TBA (Xbox One)

They do say you should never judge a book by its cover. On first inspection, *Book Of Demons* is the latest in an ever-lengthening line of indie-scene genre mashups, in this instance a splicing together of dungeon-crawler and collectible card game in a cheery papercraft casing. Leaf through its pages, however, and you unearth something far more surprising. This sort of Venn-diagram approach to game design can often feel cynical, a grab for two audiences at once. Yet at *Book Of Demons*' core lies something rare, and wonderful: a deep, constant respect for the player and their time.

The most explicit example of that attitude is what developer Thing Trunk calls the Flexiscope. Your descent into Hell to take on Satan – papercraft Satan, mind, who's shown enjoying a flame-licked bath with origami rubber ducky in hand – will involve a fixed number of dungeon floors. Before setting out, however, you're asked how long you want to play for, from an eight-minute sortie over two floors to a 40-minute marathon. The longest sessions are the most rewarding, but payouts are scaled to ensure you still feel fairly compensated if you've only got a few minutes to spare.

It's smart stuff, and it doesn't end there. Your movement is on rails, and your character leaves footprints to minimise needless backtracking (and if the tracks are gold, you know you've picked a pathway clean). At the top of the screen, icons show the current floor's loot stashes, with those you've already collected coloured green. And when a level has been cleared out – all enemies killed and pickups harvested – an icon appears to show the direction of the exit stairway. Click on it, and you'll move on to the next floor immediately.

It's a tremendously friendly game, which is all the more surprising given the mix of genres at its core, neither of which is thought of as being particularly welcoming. That's not to say it's easy – a Roguelike mode is as punishing as it sounds and then some, and even Normal mode can get hard enough for the developers to allow you to switch to Casual difficulty at any time. But it's a cheery old time, the light-hearted tone, and constant sense of your investment being appreciated and valued, pulling you forward.

Even when the odds are stacked against you, you'll have all the tools you need to cope. Your initial starting hand of just three cards quickly expands, loot drops and treasure caches expanding your inventory and earned gold increasing your equip load. Cards come in three flavours, coded by colour. Reds are consumable items, restocked through treasure pick-ups, corpse drops or by buying top-ups at the town hub. Blues and greens share a mana pool: the former are spells with a mana cost per use, while greens grant passive buffs and abilities and require a fixed amount to equip. This gives deck-building a fine tension: there's an allure to the green side of the fence, since most buffs focus on survivability and death chafes in a game as outwardly friendly as this. But doing so means giving up damage and speed, since each green equipped reduces your available mana. You'll need to consider your consumables, too: a health potion feels essential even when you've specced your buffs towards restoratives, though you'll often want to give over a slot to a status remedy or elemental bomb. A screen before each floor shows the enemy types that await, letting you spec your loadout accordingly.

On first inspection the moves, spells and items don't stray far from type – no surprise from a game that cites the original *Diablo* as a key influence. But the base cards are only the start. Each has multiple variants that drop in dungeons, strengthening the core effect and often adding others. They can be powered up, too, using runic cards that can themselves be combined to form stronger versions required for the more powerful upgrades. This costs money, as does replenishing stocks, unlocking extra card slots and just about everything else. That means that, no matter the length of session you opt for through the Flexiscope, you're always making progress towards something – an extra slot, a rune fusion, a more powerful version of a go-to card.

The card game is the better half of *Book Of Demons*, however, elevating a humdrum dungeon-crawler. The papercraft aesthetic gives thematic justification for a minimal animation budget, as characters and enemies hop around levels and stand stock-still during damage phases. Limiting your traversal to fixed pathways means it's often a battle to keep enemies, which have free movement, in range; when deliberately designed – fighting a flighty enemy in an arena with tracks running around its perimeter, for instance – it works well. But at other times it's simply annoying, particularly given that the same mouse button governs movement and attacking. An attempt to pin down an opponent might instead see you skipping off down an unwanted path; you might try to select a new target and find yourself marching into a poison cloud. And the fact that all combat takes place from range – even the notionally melee-focused Barbarian does most of its DPS from ten yards away, since you're stuck on your railtrack – reduces the distinction between the three classes.

You'll likely give them a whirl anyway, since this is a difficult game to walk away from. A smartly assembled postgame pulls you back in even when Satan's been dispatched to, well, wherever the king of Hell goes when he dies, the promise of just one more new drop or card upgrade compelling you to climb the difficulty tiers of the remixed dungeon layouts. And the whole thing is presented with such a light touch that it's hard to look upon it with disdain – particularly when you remember how fondly it looks upon you. This is one hybrid genre piece that's ever so difficult to put down.

7

The whole thing is presented with such a light touch that it's hard to look upon it with disdain



CHAPTER AND 'VERSE

Load up the game and you find yourself in an empty room, in which sit seven plinths. All are empty except one, which bears a single book; hover over it and, as the words *Book Of Demons* appear, you realise that you're not actually in the game yet, but instead an all-in-one launcher for a planned series of games. Return 2 Games, as Thing Trunk styles it, will, when finished, be a compendium of "mid-core" titles, celebrating PC gaming's 1990s heyday. The developer isn't saying anything about what's next, but says that, just as *Book Of Demons* harks back to *Diablo*, so each game in the series will riff on one of the classics, updating it with modern-day themes and mechanics.





LEFT It may share its papercraft aesthetic, but this is no *Tearaway*. It's happily low-rent stuff that's charming because of its cheapness. **MAIN** It's not just a game of clicking near bad guys; shields must be specifically targeted and broken, and enemies or bosses that are casting spells must be stopped with a long click on their spell icon. **BOTTOM** The town is a single-screen hub area whose NPCs not only serve as vendors and quest-givers, but also fill out the lore of the world, cheerily styled as gossip



ABOVE Card combining is a major focus of the endgame, though you shouldn't rush in to an upgrade just because you have the required materials. A card's mana cost will increase with each evolution



Genesis Alpha One

Publisher Team17
Developer Radiation Blue
Format PC, PS4 (tested), Xbox One
Release Out now

Much like the spaceships it has you constructing and customising, *Genesis Alpha One* feels like an assemblage of disparate parts, pulled together into a slightly rickety whole. The parts themselves are all perfectly functional, but as with any game that wraps up multiple components, what really matters is whether, when brought together, they manage to create something more than their sum.

Let's start, as each playthrough of *Genesis Alpha One* does, with the ship building. You're assigned a set amount of resources in order to build a checklist of mandatory facilities – quarters for your crew; a greenhouse to generate their air supply; a tractor beam for extracting debris from nearby wrecks – and then left to decide how to arrange them. Each module snaps neatly onto the skeleton of your ship, and can be linked up with corridors, lifts and access tunnels.

Once you've got a workable ship, the game proper starts, shifting you into more of a management role. How will you replenish your pool of resources, and what will you spend them on? Over time, you can grow your crew – literally; they're all clones – and build new modules, taking your ship from a compact Millennium Falcon to a full-blown USS Enterprise, with facilities spread across multiple storeys. It's a city-builder in miniature, all about balancing input versus output, but with a fairly major difference. Once you leave the top-down construction screen, the game all takes place in realtime, from a firstperson perspective, with each module operated manually. Think *FTL* as an FPS, or a *Lovers In A Dangerous Spacetime* where you have to manage all the adorable astronauts yourself.

You're put in the role of captain, assigning crew members to tasks or getting stuck in yourself, through the medium of standing at a terminal and holding down a button while a loading bar fills. These are not the most thrilling interactions, but they do ground the abstractions of resource-gathering in something tangible. Every task comes with a risk. Each chunk of iron beamed on board, every piece of ore refined, has a chance of bringing a hostile lifeform on board. Because yes, there's a shooter component to *Genesis Alpha One*. You're tasked with fighting back infestations of bugs and, later, boardings by more capable and better-armed humanoid foes. The latter are more satisfying to fight than the infestations, which largely involve looking at your feet and squinting as you try to discern where you should be shooting. This is bolstered by a light tower-defence element, as you identify likely hot zones and blind spots around the ship, then deploy turrets and barriers to repel invaders. There's solid motivation to do this – left unchecked, they'll destroy the nodes that power each module, eventually tearing your ship apart.

Not all fights take place within the confines of your own ship, however. Construction of the hangar module opens up nearby planets for exploration – small patches of land with a procedurally generated set of resources to be collected, crash sites to be raided, and local fauna to avoid getting killed by. It's like *No Man's Sky*, if each of its worlds were cordoned off to a 100 square-metre area. This is another task that can be completed by your clone minions – just assign one or two to the hangar, pick a destination and wave them off – but the expeditions are a welcome break from the constant claustrophobia of metal hallways and crawlspaces.

Eventually, an expedition will go awry, or an ill-advised wander into the wrong corner of space will bring those space pirates to your unprepared door, and you'll die. And it's here that *Genesis Alpha One* introduces the final module strapped onto its already heaving frame. Surprise! It's also a Roguelike. Death isn't necessarily final – at least not the first time – because the captain's hat is merely passed along to the next available clone. But eat through all your crew members before you can manage to clone up some fresh ones, and it's right back to the beginning of a new journey in a regenerated galaxy.

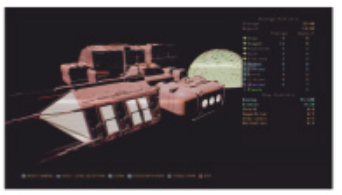
The problem with this structure, as *Genesis Alpha One* deploys it, is that the differences between each of these galaxies take a long while to become apparent. The first hour or so of any given playthrough is essentially identical: complete the checklist of modules, collect the basic resources to build the rest, and then slowly push from star system to star system in search of adventure. This is somewhat alleviated by unlocking some of the higher-level corporations, which can be selected as your faction at the outset of each playthrough to alter the starting conditions, but it's an eventual solution to an imminent problem.

The unlocks, which also include different species to man your ship and performance-enhancing artefacts, aren't quite enough to pull you through the game. Nor is the game's stated end goal: to find a planet that your crew could call home, that meets the requirements for moving in – which may require them to undergo some genetic alterations, like terraforming in reverse – in order to settle there. A noble cause, sure, but you rarely feel it in the actual process of collecting resources, blasting aliens and upgrading your ship.

For all the myriad parts that make up *Genesis Alpha One*, it feels like there's something missing at the centre. Without a clear motivating engine to drive your actions, it can feel like you're constantly playing just the top layer – that strategy wrapper of base-building, resource management and upgrade trees you might expect in an *XCOM* or *Total War* – without ever getting to play the actual game bit buried underneath. Chances are you'll abandon ship long before you break through the crust.

5

Without a clear motivating engine to drive your actions, it can feel like you're playing just the top layer



CUSTOM BUILDS
Genesis Alpha One deploys a classic trick in its efforts to get you invested in your own personal starship: customisation. You can rename the vessel and all who sail in her, and alter the signs above each door to help navigate this labyrinth of your own making. You can pick the colour scheme, from choosing a distinctive style for each module's upholstery all the way up to spray-painting the entire spaceship hot pink. All of this does build a sense of ownership of the USS Carly Rae Jepsen, or whatever inferior name you've chosen, but it works less well on the crew of clones, who are by definition featureless cookie-cutter mannequins.

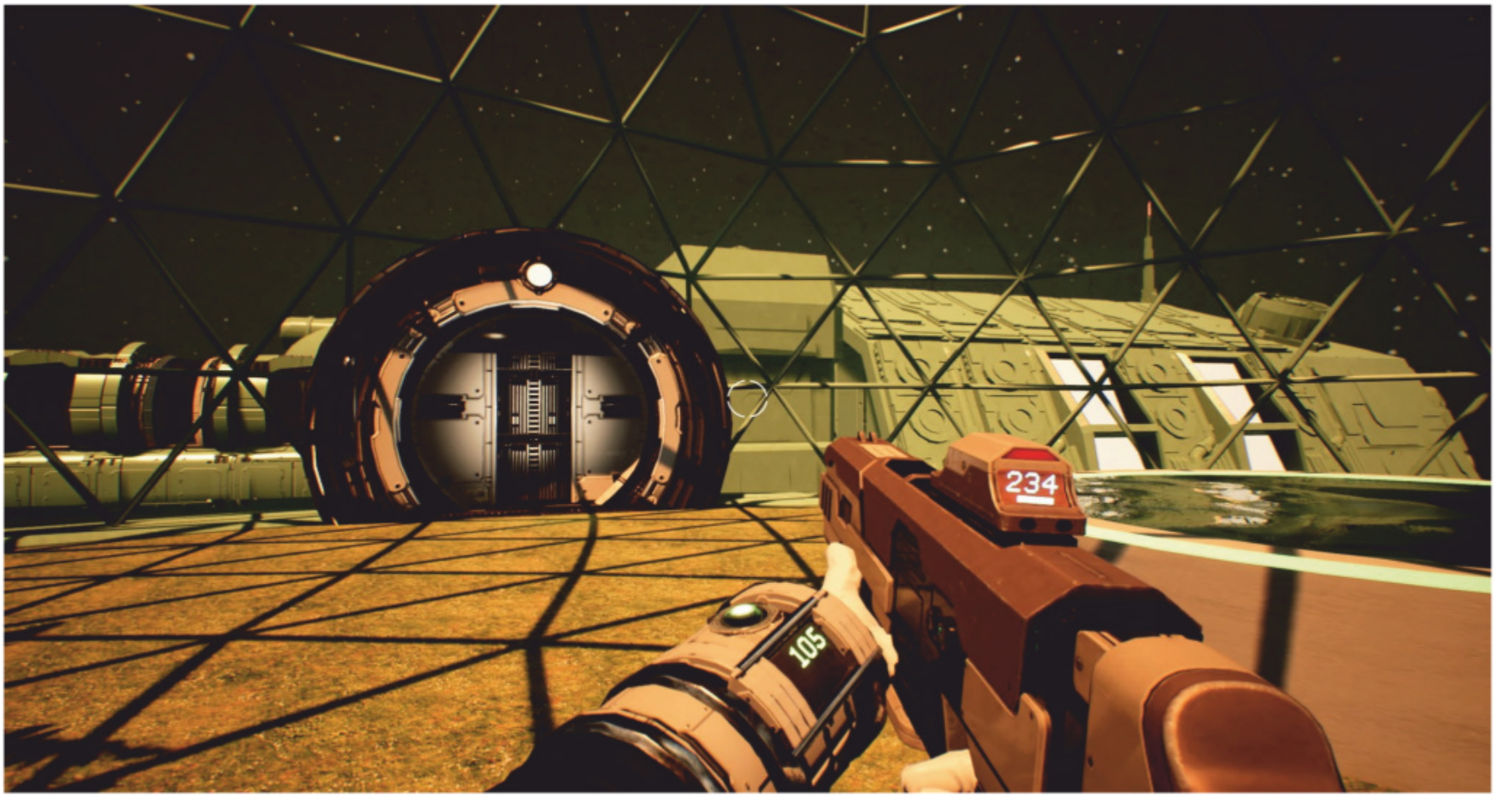


RIGHT The ship's crew members have all the personality you'd expect from a bunch of bald clones – visually and as conversationalists. Try talking to them, and they'll offer text-based tutorial prompts.
BELOW The prefab modules come with little details that, like Alien's lingering shots of the Nostromo, suggest a lived-in history. Which is aesthetically pleasing but illogical, given you just, erm, built them.
MAIN Glimpsing the ship's exterior through a porthole or, in this case, the glass wall of a geodesic dome is a lovely moment that can change your understanding of the unique environment you've created





ABOVE On the surface of alien planets, you can locate crash sites to access transmissions from fellow travellers, pointing you towards relics and harvestable resources all the way over on the other side of the galaxy



Sunless Skies

Developer/publisher Failbetter Games
Format PC
Release Out now

Hard to imagine, isn't it, what might be inspiring so many developers to make games about cataclysmic scenarios lately? Regardless, seemingly every month we find ourselves topping up dwindling meters of various kinds, trying to make a lot from a little in worlds where resources are scarce and disaster always seems to be around the next corner. But while games about survival tend to devolve into a slow trudge towards an inevitable game over, failure in *Sunless Skies* is often exciting, and catastrophe can lead to opportunity. Should your ultimate ambition be fame rather than fortune, for example, scary encounters and memorable escapes will help you write up a thrilling chronicle of your journey. Or you can cash in these narrative chips early, trading stories for supplies at island settlements, where locals wait for adventurers to stop by and relay their tales of terror.

All of which is to say that the third game in the Fallen London universe gives you a little more wiggle room, but is otherwise as tough-nosed as predecessor *Sunless Sea*. That game's tagline, lest we forget, was 'Lose your mind. Eat your crew', and it's inherently possible here; likely, even, should you run out of fuel or food. It's structured in a similar way, too, supporting controllers but best played with a keyboard and mouse, as you steer your slow-moving sky locomotive with WASD, jabbing Q and E for sharp lateral thrusts to avoid slamming into scenery or to ensure enemy projectiles whistle harmlessly by. Then when you're docked, it becomes something like a sophisticated tabletop RPG, a classy piece of interactive fiction with choices whose outcomes are part-determined by dice rolls, influenced by character traits you've chosen from the start, and experience you've gained since.

Like *Sea*, *Skies* is essentially about getting yourself in a tangle and figuring out how to extricate yourself, preferably with the least possible amount of cannibalism involved. And it's admirably upfront about the hardships you'll face. "A thousand deaths wait in the sky," reads the final diary entry of your craft's current captain, written shortly before some ungodly malaise claims her. It says much that the presence of choking smog and industrial clanks brings comfort to your anxious crew. This, the port of New Winchester, is your home, a haven from the cosmic horrors beyond, a place to rest up, fix up – maybe even staff up – and look for work. You'll speak to locals and accept quests or chase prospects to distant ports, with nothing but a general compass direction to head in; your sky map is blank until you venture forth. And so you head out, armed with the sure knowledge that things are going to get worse before they get better.

But they will. *Sunless Sea*'s narrative focus didn't always knit well with its Roguelike template, with repetition blunting its sense of wonder and discovery. *Skies* is a little kinder, though it has to be – this is a larger world and a longer game, with potentially more to lose upon death. Starting again here allows you to benefit from much of your predecessor's experience, and you'll retain your ship, albeit minus one randomly chosen part, so it's wise not to get too attached to that mining drill or machine gun. And should you suffer an unavoidable mishap – like a friendly scout clumsily swinging round and bashing into your side, ripping a fatal hole in what remains of your hull – you have the option to restart at the last checkpoint.

The same applies to those who would rather focus on the story, though we'd argue it should only really be used as a last resort. *Sunless Skies* is at its best when the stakes are high, the pressure begins to tell and it's not just your hull that's cracking up. Even with a powerful arsenal, a bulging hold and a full, healthy crew, longer journeys through treacherous territory take a toll on the mind. There are only so many terrifying sights and sounds you can cope with, and unless you take a break and find somewhere to soothe your soul you'll suffer some cruel luck. For once, fortune favours the cowardly.

Still, you'll need to take calculated risks to get anywhere, though choices frequently have unintended consequences. While the outcomes are often made plain, the script has a habit of slyly hinting at *possible* repercussions, leaving you uneasy about your decisions. Locate a supply cache in the wilderness and you're invited to write in a ledger to confirm you've incurred a debt. You have the option to simply cut and run, though your shipmates express their doubts should you do so. Even if you do the honourable thing, the debt remains in your journal, a nagging reminder to pay it back. Indeed, the writing is consistently strong, finding moments of levity in even the bleakest situations, such that it often feels like a black comedy. And when it needs to dial up the horror, it turns on a dime, with help from a simple but brilliant addition: snippets of text are overlaid on the environment, sometimes adding extra colour but usually warning of imminent danger. Upon reading that your crew is on edge, suddenly so are you.

It's the promise of danger that chills you, rather than the realisation of it. Failbetter springs some devious surprises: after scavenging maybe half a dozen floating wrecks, you'll stumble into a trap laid by a waiting craft that emerges from the clouds like a ghost ship through fog. But they're not particularly smart. Combat is deliberately a little awkward and enemy AI is erratic, though it serves its purpose, ensuring you can't relax even when things look comparatively rosy. Besides, to carp about what amounts to a tiny fraction of the time you'll spend in *Sunless Skies* is to miss the bigger picture. This is a game about stories that has a knack of producing really good ones – when you're doing well, and especially when you're doing badly.

9

> The script has a habit of slyly hinting at possible repercussions, leaving you uneasy about your decisions



CHOO-CHOOSE A SIDE
You can park your train at two stops adjacent to New Winchester's hub for the chance to chat with representatives of *Sunless Skies*' main factions: the Tacketies, who are seeking independence from London, and the loyal Stovepipes. If amassing a large retirement fund is your goal, you might want to throw your hat in with the latter, who'll butter you up by inviting you to posh parties and hosting secretive meetings in lavish surroundings. But you can simultaneously keep the colonists sweet by writing up and handing in port reports for every stop you've visited. Gaining enough favour with one side will earn you certain advantages, from valuable artefacts to disturbing secrets. Shift the balance of power too far, however, and you risk attracting the wrong kind of attention from the other side.





RIGHT You'll find certain goods temporarily available at reduced prices, so you might want to take detours to pick up bargains. Note the date, and jot down local prices. **MAIN** Failbetter's best-looking game, *Skies* has improved lighting and detail and some striking new character portraits. A disadvantage to the top-down view is that it's initially hard to divine whether you'll pass below an environmental feature or smash straight into it. **BOTTOM** We won't reveal where this transit system takes you – but you'll need to be well-stocked with certain items if you're planning on making a return trip





ABOVE Magdalene's is the place to go to recover. Here you can be treated for specific feelings such as ennui and loneliness – either way, this will lower your Terror stats, preventing you from succumbing to nightmares

Pikuniku

Simple can be effective. Take *Pikuniku*'s protagonist: a red blob with two black dots for eyes, bouncing around on gangly legs, it nonetheless exudes personality. Its signature move is similarly to the point – this is a character out to solve puzzles and best an evil corporation using naught but powerful kicks. The results are, predictably, hilarious. Sectordub's slapstick adventure might stumble in places, but it's to the studio's credit that you'll usually end up laughing it off.

The art style sets the tone for the brief, but joyous, campaign. The game looks like it's been illustrated using Microsoft Paint's template shapes, and Calum Bowen's soundtrack is characteristically brilliant, *Animal Crossing*-style jazz spiked with surreal asides. You're prepared for silliness, and that's exactly what you get. Early on, fixing a bridge involves some abstract and mischievous thinking, and the punchline is exquisitely timed; a task where you must redesign a scarecrow provides an opportunity for improv that can become doubly funny in its later context.

Even movement is an absurd extended gag. You'll fuse Piku's feet to grapple points before slinging him into the air, or accidentally-on-purpose boot NPCs in the face just to see their reactions. So yes, it's silly. But

The writing never veers into twee wackiness; interacting with townsfolk is delightful, not least because of the stellar audio work. Their problems tend to be hilarious, too – a rogue toaster presents a stiff platforming challenge

Developer Sectordub
Publisher Devolver Digital
Format PC, Switch (tested)
Release Out now



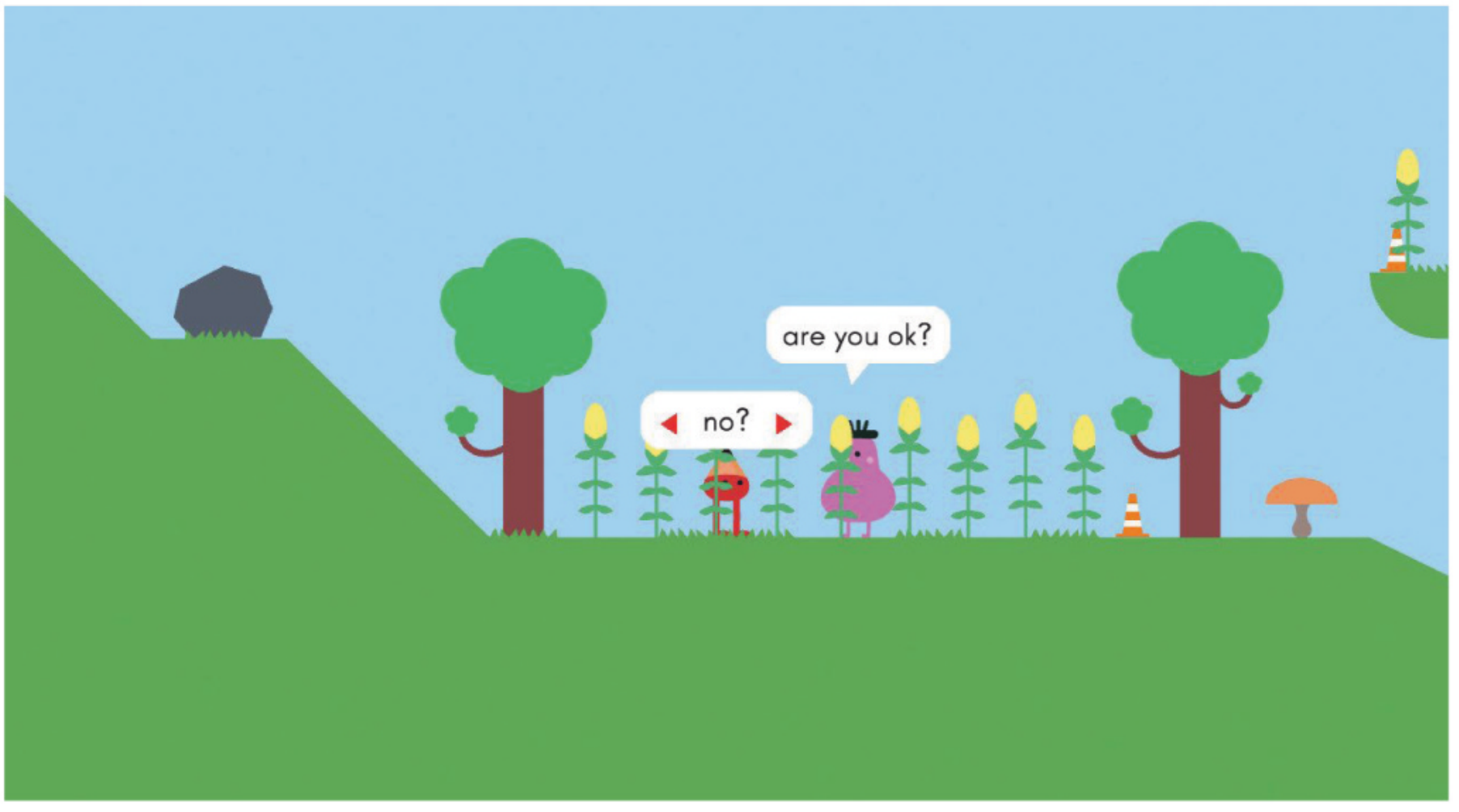
BAND TOGETHER
Pikuniku's co-op mode (starring Piku and his yellow twin Niku) is more than sufficient for half an hour of laughs with a friend. It has enough ideas to be gently entertaining; attempting to platform and solve puzzles while tethered to your pal is a standout mode. But new ideas are few and far between, and there's a lack of truly inventive collaborative tasks to really sink your teeth into beyond more of the overplayed switch puzzles in the campaign. We're of the firm belief, however, that Baskick – a game in which you must hoof a melon into the opposite basket – should be an Olympic sport.

Pikuniku – at least in the campaign's opening half – proves itself rather slick. The first two villages are stuffed to bursting with sidequests and a variety of hidden minigames that reward curiosity. And in a tale about the smiling insidiousness of capitalism, you find yourself hoovering up coins dropped around the ravaged environments by Sunshine Co's lumpy robots, with the creeping sensation that you're part of the problem.

Unfortunately, *Pikuniku* never quite musters the energy to meaningfully explore its ideas. You'll soon find the coins you collect can be spent at shops: we were rather hoping they'd be moot. The hat mechanic feels underdeveloped and unbalanced, offering little incentive to switch between them. Meanwhile, the overarching menace and comic thrust get lost behind busywork: the enemy is reduced to a few basic robot boss fights, and barely contextualised. There's a sense of the game losing the spring in its step in the latter half. Puzzles quickly go from bespoke setups for punchlines to 'put object on switch' tedium in barren tunnels, and the third 'village' is an empty, linear trudge, despite being home to some of the most entertaining characters.

With a painfully funny defining joke in the finale, and more to discover around the livelier parts of the world afterwards, *Pikuniku*'s got legs, even if it lacks the stamina to fully get over the finish line. Happily, those ridiculous legs are well worth a punt.

6



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TIME EXTEND



Dead Space: Extraction

A smart horror spinoff whose uncertainty guaranteed a good time

By Jon Bailes

Developer Visceral Games, Eurocom **Publisher** Electronic Arts **Format** PS3, Wii **Release** 2009

Horror in *Dead Space: Extraction* comes from the imminence of danger and the absence of control. It trades on our fear of being propelled into the unknown as much as on the threat of its monsters. And while it doesn't shy away from gore and jump scares, its main weapon is toying with your perception and sense of agency.

Extraction is one of numerous lightgun-style shooters that created a mini-revival for the genre on Nintendo Wii, along with the likes of *House Of The Dead: Overkill*, *Ghost Squad*, and *Resident Evil: The Umbrella Chronicles*. But it doesn't quite fit the profile, occupying a sort of niche within the niche. It fiddles with the familiar structures the other games reinforce, and subverts your expectations to create its sci-fi horror show.

As a spinoff, *Extraction* borrows ideas and assets from the first *Dead Space*. But its main achievements are its own, as it redraws a template synonymous with immediate arcade play to form an atmospheric, narrative-led journey. This metamorphosis creates tensions, which are used to manipulate you. On one hand, there's the tension between interactivity and storytelling, or whether you feel like a participant or a passenger in the game's events. On the other, there's a tension more specific to the genre, in the contrast between the predetermined routes of character movement and the inputs you're allowed.

At the core of this dynamic is *Extraction*'s use of an in-game firstperson view, which confines your experience of the unfolding plot to each chapter's unbroken realtime take. If the ideal for narrative design is to direct the player's position and sight without removing their sense of control, as a firstperson rail shooter *Extraction* has this potential hardwired in. Its players expect to follow preset paths, and so the developers could insert events and conversations without breaking perspectival immersion or compromising their limited power.

The horror potential of this scripted viewpoint is instantly clear, with its blend of unstoppable forward motion and unpredictable camera pans. Player characters move with caution, checking side passages and ceiling vents as they go, while thudding alien footsteps and screeching incidental music threaten danger from all sides. Especially unnerving is the way characters glance behind themselves occasionally; it adds to the idea that something might be there and leaves you open to a scare when your view reverts to the path ahead. You constantly feel at the mercy of a frightened individual's decision-making powers.

The experience is comparable to a found-footage horror film such as Blair Witch or Cloverfield – that intimate and inescapable position among the protagonists, with its shaky, claustrophobic field of vision. Except here you're placed inside a character's view, removing the contrivances of having to include the camera within the fiction. That gives *Extraction* room to experiment, not least by switching protagonists at key points, which further adds to your uncertainty over the fates of the core group. No character is guaranteed to survive just because they're attached to you.

The opening chapter functions both as a tutorial in the regular sense and as a lesson that you should take nothing for granted. It puts you in the shoes of Sam Caldwell, one of the engineers on mining colony Aegis VII tasked with transporting a recently excavated alien 'marker' to a research facility. Immediately, things go wrong. Other engineers are driven insane by the marker, and Caldwell starts to hallucinate whispers and alien symbols. You're forced to defend him from the psychotic crew, and by the end of the chapter you've killed them all. It's then that security forces arrive and shoot him, and as he dies you hear them lamenting his breakdown and solo murderous rampage.

This reversal reconfigures your experience, leaving you wondering what you're doing and whether you can trust your own senses. It's the gaming equivalent of literature's unreliable narrator, except here the perspective is your own. From that moment, an air of doubt lingers throughout the game, and intensifies at specific points when those hallucinatory audiovisual effects are reintroduced. Again, this feeds back into the tension between agency and lack of control: are the characters you're ▶



Close encounters can be repelled with a swipe of the Wii's nunchuk, one of many ways motion control is integrated into play

responsible for even following their own motivations, or being pulled along to their doom by an alien consciousness?

Having set this precedent, *Extraction* focuses on exploiting your sense of vulnerability. For every battle in an open space, there's a slow crawl through infested air vents, a trudge through waist-high water, or a trek along a narrow walkway with a huge, tentacled creature lurking above. Whatever weapons you're carrying, you still feel exposed and boxed in. There are areas that dial down the pressure, and even the sporadic boss encounters are more imposing than genuinely scary, but these also ensure you can't relax into a comfortable rhythm.

As for the monsters, the designs from the original game translate across perfectly. The distinctive necromorphs are often roughly humanoid, but their twisted forms and alien-infused biology make them unpredictable adversaries. They charge down walls, drop from above or reanimate from corpses in front of you, and you have to dismember them to take them down. Having to lop off limbs to slow their advance adds a layer of tactical prioritising beyond the usual procession of headshots. And again it's uncertainty, this time about how these vile bodies function, that keeps you blasting away when little more than a torso remains.

Even so, these are the times when you're in control; specifically, a form of crowd control that requires decisive management and precision execution. Yet *Extraction* is no simple shooting gallery, and you've a wealth of options to tackle the advancing threat. The methodical precision of the plasma cutter gets you so far, as it dissects the common necromorph varieties. But as the enemies multiply and evolve into increasingly bizarre forms, you're not merely prioritising but multitasking. The need to rapidly switch between guns increases, and a balanced loadout soon becomes essential.

In the tutorial you're introduced to engineering tasks such as riveting panels in place, sawing through barriers and shifting objects with a kinesis beam. Before long, these actions and others are integrated into the fight for survival. In battle you juggle shooting, melee attacks and quick reloads, while also deploying stasis to slow enemies down and kinesis to pluck projectiles out the air or grab ammo and health drops. Then you're using the rivet gun to reinforce a barricade, shaking a 'glow worm' for light or welding a circuit together to activate a door, all while trying to pin back the alien advance.

There's a brilliant contextual flow to this moveset, but its relative complexity and the different motions it demands are also geared to induce panic. In a perverse twist, the one thing as horrifying as not being in control is having to control too much, and each option reduces the certainty and proficiency of your actions. As if to emphasise the point, in many of the game's deadliest sections the

HAVING TO LOP OFF LIMBS ADDS A LAYER OF TACTICAL PRIORITISING BEYOND THE USUAL PROCESSION OF HEAD SHOTS



The characters feel mostly credible, thanks to high-quality animation, a decent script and distinctive voiceover work



ROLE MODELS

***Extraction*'s core characters are simple archetypes thrown together for classic narrative payoffs. After the opening level, you play as colony cop Nate McNeill, who teams up with security officer Gabriel Weller, surveyor Lexine Murdoch and company man Warren Eckhardt as the colony descends into chaos. Their escape to the doomed Ishimura (prior to the events of *Dead Space*) produces a neat group dynamic, which pulls Nate and Lexine together, positions Eckhardt as potential traitor and sets up cold pragmatist Weller as a reluctant hero. Yet in hindsight it's one area where the game over-relies on conventions. In particular, Eckhardt's South African accent seems intended to make him more villainous, while Lexine's role often becomes an unfortunate mix of damsel and McGuffin.**



***Extraction* uses the fixed viewpoint to place you right at the centre of its horrifying alien outbreak, as witness to the initial panic and destruction**

player character's companions offer no help, or appear to go missing altogether. The price of taking charge of your own fate is being made responsible for everything.

This notion is brought to a gruesome conclusion in a moment near the game's end. Your character is pinned to the floor by a giant alien mutation, a spike impaling his hand to the ship's hull. You wonder what to do, and then the camera fixes on the arm. You can't look around for options and only one tool is available – the rock saw. The arm has to go. As in the first chapter, you're forced into doing something unthinkable, but this time aware of the reality. There's horror in the certainty of what you must do, and having your control turned against you.

Given its ambitions, and some B-movie production values, it's inevitable that the structural tensions in *Extraction* sometimes snap. As an action game, the drama can only be built up for so long, and thus events are sped through in a way that deadens their impact. Minor characters, especially, are despatched with near indifference as the core group pushes forward. And in that opening level there's sometimes an almost comical disconnect between the crew's fate and the demand for clinical shooting. The apparently crazed engineers rush towards you. Sam pleads with them to stop, threatens to fire if they come any closer, then swiftly pops their heads off with the rivet gun.

Elsewhere, in an attempt to balance interaction and plot development, you're given things to do during dialogue scenes. In practice, this means that while the group figures out a plan, you're left to vaccuum up anything not nailed down with the kinesis beam. Collecting becomes a sub-game, which sees you constantly scanning the background for more ammunition, upgrades and data logs (which, in their readable form, commit the sacrilege of pausing the action's otherwise unbroken flow). It's an excessively game-y mechanic that rubs against the overall vision.

Regardless, the overriding experience remains the sense of a game playing with you as you play with it, using the camera to channel your focus, and working the unexpected around a reliable ruleset. The craft of *Dead Space: Extraction* remains a confident blend of uncertainty and control. ■

In later chapters, the smallest enemies sometimes become the biggest nuisance. Keep a flamethrower handy to exterminate them quickly



PREFER THE PRINT EDITION? SEE PAGE 76



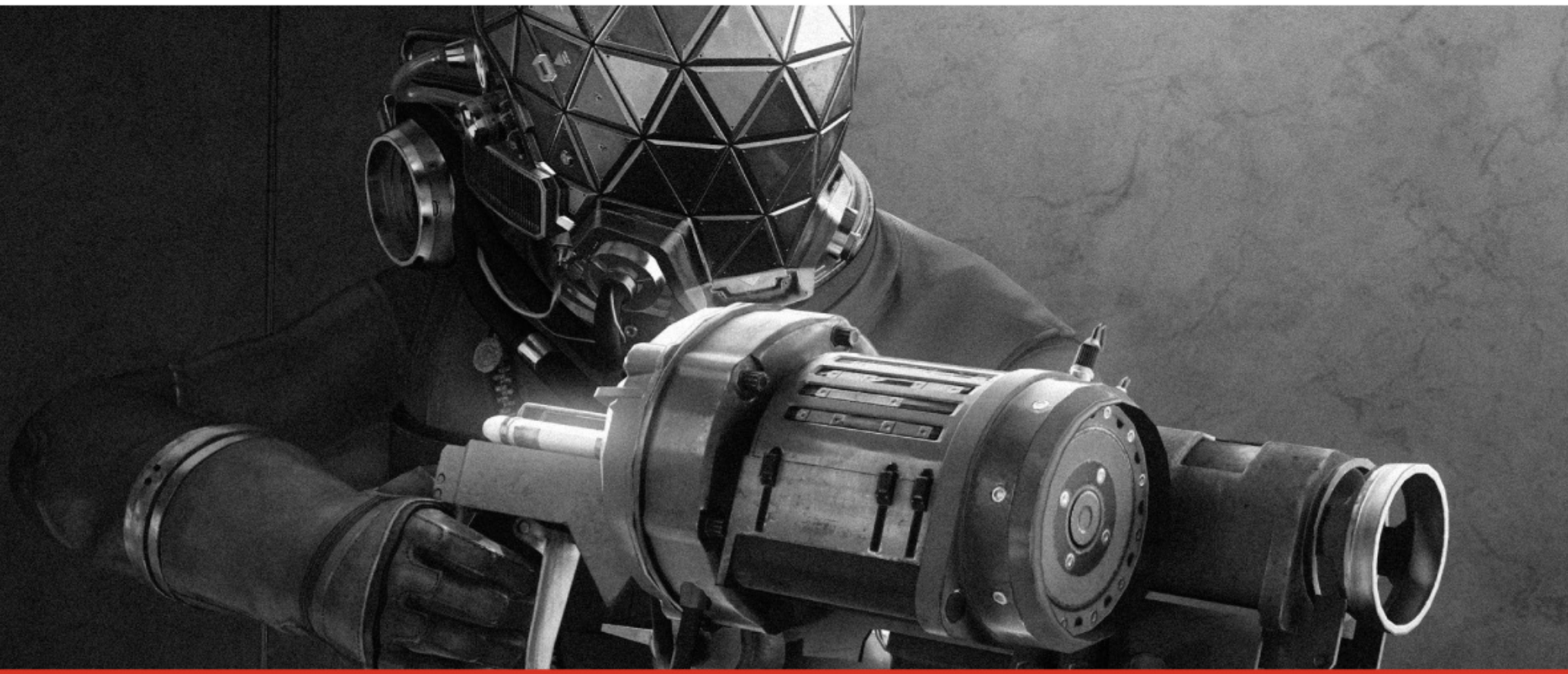
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A progress report on the games we just can't quit



Prey

Developer Arkane Studios **Publisher** Bethesda Softworks **Format** PC, PS4, Xbox One **Release** 2017

Since *Prey* first landed, the outlook for immersive sims has only got bleaker. *Deus Ex* and *Dishonored*, arguably the modern standard bearers for this weird semi-genre, have both been put on pause, while Warren Spector's return with *Underworld Ascendant* was met with a chilly reception. Seemingly in response, *Prey*'s DLC has torn to shreds the orthodox approach of the original release in search of a new direction.

Its first expansion, Mooncrash, reimagined *Prey* as a firstperson Roguelike. You're tasked with escaping a lunar landscape infested with Typhon, the game's shapeshifting aliens, without dying – not once, but five times, as you guide different characters with their own abilities, strengths and weaknesses to salvation or doom. As in the games it takes inspiration from – the developers have referenced *Spelunky*, *Dead Cells* and *Darkest Dungeon* – death means starting over. Relative to those games, the shape of the map doesn't really change between runs, but redistribution of items and enemies keeps each playthrough varied.

More recently we've had the twin release of Typhon Hunt and Transtar VR, variants as unlike one another as they are the original game. The former extrapolates an asymmetrical multiplayer mode from one moment in the base game: the bit where alien Mimics, and later the player, disguise themselves as cups, paperweights and other innocuous props, wait for their quarry to pass and then launch a surprise attack. In five-minute rounds, players alternate between the roles of wrench-wielding protagonist and a scuttling member of Team Mimic. The idea owes a lot to the Prop Hunt mode that grew out of Garry's Mod, but unfortunately this isn't where the comparison ends – it feels like Arkane has produced a mod to its own game, with the associated production values. Transtar VR lifts the game's theming and applies it to what are essentially virtual escape rooms. It's a fascinating approach to expanding a game, but again the execution is wanting. Puzzles lack any real spark and the physics are a little shonky.

Playing *Prey*'s DLC is like viewing the original game through a succession of funhouse mirrors. But while the latter two are faintly amusing distractions, only Mooncrash really holds its shape. The genres it fuses slot together well – the added sense of risk means there's more reason to find routes that skirt danger, while multiple characters force you to experiment with *Prey*'s various playstyles. It's a surprisingly viable alternative to the game that spawned it. If the environment will no longer support more conventional immersive sims, then Mooncrash feels like it might have stumbled upon an evolutionary pathway for the series, Arkane or the genre at large to explore next. ■

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